Personnel

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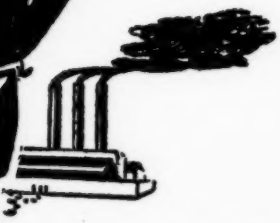

JULY, 1942

AMERICAN MANAGEMENT ASSOCIATION
AMA

THE AMERICAN MANAGEMENT ASSOCIATION

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..... Strictly personnel

For Distinguished Service to Production . . .

"Production soldiers" whose suggestions advance the war effort are now eligible for official citation just as regular soldiers are, the War Production Board has announced, provided they work in plants which have voluntarily organized the labor-management committees recommended by the WPB.

Three types of award have been planned, the highest of which is the "Citation of Individual Production Merit." This will be given only to an employee whose suggestion has had an outstanding effect on the entire war effort; and the recommendation of a WPB technical committee, approved by Donald Nelson, will be necessary to obtain it.

The second highest award, the "Certificate of Individual Production Merit," will be granted by WPB Production Drive Headquarters and will be based on reports of labor-management committees. To win it, a worker must have made an "outstanding suggestion" that has proved successful in actual operation.

Labor-management committees will have authority to grant the third award, "Award of Individual Production Merit," to any worker who has devised a method of improving quality or production or a system of conserving critical material. If the same worker makes additional suggestions which are worthy of recognition, additional seals will be affixed to his certificate.

Plants with outstanding production records will hereafter receive a joint Army and Navy flag, instead of the Navy "E" or the Army "A." The new flag has a yellow wreath of oak and laurel leaves on a red and blue background, with the word "Army" on the red portion and "Navy" on the blue. Employees of plants which win the award will receive miniature silver reproductions of the flag.

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Identifying the Trainee

Trainees must often learn by observing an experienced operator at work, but to a passing supervisor they may appear to be idling on the job. In such cases a good deal of time can be wasted in questions and answers and considerable annoyance experienced by all concerned.

There is, however, a very simple way of dealing with the difficulty: have trainees wear distinctive armbands which make it easy to identify them at a glance. Among the firms which have adopted this system is Bendix Radio Corporation, of Baltimore and Towson, Md.; and very much the same procedure is followed by Beech Aircraft Corporation, Wichita, Kans., which requires all new men to wear orange armbands for 30 days after they enter the plant. Beech finds that this prevents the supervisors from forgetting who the new men are and giving them too difficult assignments or putting them on a job without adequate instruction.

This identification idea has been carried still further by the Todd Seattle Dry Docks, Inc., of Seattle and Tacoma, Wash., according to *American Business*. There each craft has a distinctive helmet—carpenters, blue; painters, brown; burners, light green; etc. The theory is that a crew boss in need of additional help can select the men he needs instantly by noting their helmets. In addition, some helmets carry painted red crosses, signifying that the wearer is capable of giving first aid in cases of accidents.

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Experience with Handicapped Workers

In the past, industry has tended to classify the man with a major physical handicap as "unemployable" without bothering to determine whether or not his disability would really handicap him on every job. But 800,000 workers, many of them highly skilled, are being added each year to the ranks of the physically handicapped—who already number 4,000,000—and investigations have disclosed no real reason why many of these people cannot be considered part of the labor supply.

If the handicapped worker is not placed in a job where his physical disability will penalize him, M. M. Walter, director of the Pennsylvania State Bureau of Rehabilitation, points out, he will be able to stand the pace of production just as well as anyone. A study of 6,097 rehabilitated persons revealed that they were working at 628 different types of jobs, including higher-grade positions.

Moreover, there is even some evidence that handicapped workers may make more desirable employees than their able-bodied fellows; they are less prone to accidents, for one thing. Speaking before the sixth annual meeting of the Industrial Hygiene Foundation, Mr. Walter cited a study made in Pennsylvania which verified this theory: Only .6 per cent of 29,000 handicapped automobile drivers were involved in accidents during a certain period, compared to 4½ per cent of the 2,000,000 non-handicapped drivers. Another asset of the handicapped is that they are unlikely to be called in the draft.

Just where people with different types of handicaps will fit into the industrial picture is sometimes difficult to determine, but studies have been made which will indicate the answer in many cases. For instance, the Occupational Analysis Section of the U. S. Employment Service has discovered that a man with the left arm amputated below the elbow can become a welder if the arm is aided by a Dorrance Hook. Then, through the use of its "job family" system (a method of classifying related jobs), the Section has prepared a list of jobs which workers with such a disability can perform.

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"For the Record"

"There can be honest differences of opinion. There can be honest misunderstandings for one reason or another. There can be honest mistakes from lack of complete and correct information. But there cannot be honesty of purpose in misstatements of conditions and events when the true situations are known and understood.

"Misstatements and incorrect information have been circulated among Scovill employees. The management believes the employees want the record correct. To this end, *For the Record* will be issued from time to time."

With this statement of policy, the Scovill Manufacturing Company, Waterbury, Conn., launched a new type of

employee paper last month—not a regular house organ, merely a four-page printed sheet which is to be issued from time to time to correct misstatements in the *Scovill C.I.O. Union News*. The first issue of *For the Record* presented the following typical case:

"Misstatement in *Scovill C.I.O. Union News*, Vol. I, No. 13, June, 1942:

"'Stamping Dept.—As a result of a conference with Black and a committee of the union last week, Anthony DiTillo of the Stamping Department was put back to work immediately. Chalk up another victory for Local 569!'

"THE TRUE RECORD: The Stamp Room went on short time. Tony DiTillo requested a transfer to the Drawing Room. Request was granted. Drawing Room slowed down. He requested to go back to the Stamp Room. There was no place available in Stamp Room. He was offered a place in the Assembly Department, which he refused.

"A committee of employees with a C.I.O. spokesman met with Mr. Black May 28, 1942, to try to get DiTillo back in the Stamp Room. There was no place for DiTillo in the Stamp Room, but the job previously offered in the Assembly Room was still available. DiTillo took it.

"P. S.: DiTillo lost five days of work unnecessarily."

The second issue of *For the Record*, which appeared on June 17, cites the following, among other cases:

"Misstatement in *Scovill C.I.O. Union News*, May 28, 1942:

"'North Mill.—There's enough work for everyone on Saturday. Why is it that only a few get a chance to work? Everyone should get at least five hours on Saturday. Three five-hour Saturday shifts would certainly be fairer than having some men working and some not.'

"THE TRUE RECORD: The employees of the North Mill, and of every other Mill, are working as long as is possible to get out orders for which available material can be used. The amount of material available is not sufficient to keep all mills operating for five days full time. The urgency of need for materials for different uses varies from week to week, and the government officials direct production of most needed articles and sacrifice production of less needed things. Example: Small-arms ammunition metal and artillery discs are now given preference over wire and small rod, with the result that the Rolling Mills are running overtime and the Wire Mill is on a very much reduced production schedule."

Thompson Products, Inc., of Cleveland, is another firm that has devised a method of combating union misstatements. Instead of issuing a paper, however, this company presents the facts through plant bulletin boards.

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Extended Benefits for Draftees

While the custom of giving employees called into military service bonuses or severance pay of some kind is fairly widespread, a few companies are going further and providing vacation pay or wage dividends to drafted employees long after they have left the company.

Eastman Kodak Company employees now in the services, for instance, recently received the wage-dividend payments which would have been due them had they remained with the company (.5 per cent of earnings for the past five years for each dollar of dividends over $3.50 per share declared on common stock). Several other companies are observing the same policy, the National Industrial Conference Board reports. In a survey of the military service policies of 232

companies, the Conference Board found that seven had profit-sharing or wage-dividend plans, and three of these were allowing inducted employees to participate throughout their military leaves of absence on the same basis as other eligible employees.

Vacation pay for employees inducted since January 1 of this year, and $25 for those inducted between January 1, 1940, and January 1, 1942, will be the contribution of the Weirton Steel Company. This means that men who enlisted several months before the first draft registration are eligible for the bonus.

Unions, too, are climbing on the bandwagon. The Knitgoods Workers Union sent vacation checks to its members in the armed forces this summer. One hundred members in service received checks ranging from $20 to $45 when the union distributed the regular vacation pay to workers employed in factories.

★

The Defense Housing Shortage

While employee housing is not management's responsibility, it is certainly management's concern. For how efficient can a worker be who must:

Sleep in a "hot bed" which somebody else has been occupying a moment before and which he must leave at a stated time to make room for a third "shift sleeper"?

Live in one room with seven other members of his family?

Spend several hours a day commuting, paying more than a third of his wages for transportation?

War workers in many of the modern boom towns are trying to exist in quarters too squalid for human habitation—and spending most of their pay for rent. In Hampton Roads, Va., for instance, the housing shortage began nearly two years ago. Doubling up of families in single-family houses was immediately reported. In many rooming houses men began sleeping in shifts with four to a room. Old, insanitary shacks were patched up to rent after years of disuse. Rent rises of from 5 per cent or more each year to a total of 50 per cent for the past three years were officially reported.

But new and dramatic means to meet this large and still growing housing shortage are reported by the Federal Public Housing Authority. The Hampton Roads area now has a prefabricating factory which turns out 40 war homes a day (they are being erected and occupied as fast as they are built). Trailers, dormitories, permanent homes, experimental units—all are being used to house Army-Navy personnel, shipbuilders, and the other war workers concentrated by the thousands in the area.

Newest solution to the housing problem is the Federal Public Housing Authority's plan for "duration dormitories"—temporary structures which will provide all accommodations necessary to the health and welfare of the workers. Each dormitory is to be composed of from two to four sleeping wings and a sanitary center with lavatories and showers. A special effort will be made to make ceilings, walls and floor coverings muffle-proof.

Dining facilities for each dormitory block are to be provided in one hall; and they will be adapted to shift schedules, furnishing breakfasts for workers going on shift and dinners for those finishing their shifts. For each group of dormitories there will be a central building containing a lounge, library and writing room, an indoor games room, and a combination gymnasium-auditorium for multiple community use.

But, according to *Business Week*, there

is a development in New Jersey which may change the whole trend of defense housing. Audubon Park is a government-built village occupied mostly by employees of the New York Shipbuilding Corp. Erected last year at the insistence of the Industrial Union of Marine and Shipbuilding Workers, C.I.O., it is run by a cooperative at present and will become even more of a communal venture if the residents have their way. Briefly, they propose to buy the town from the Federal Works Agency and operate it under a plan by which tenants, instead of buying homes, will pay set monthly fees for equity in the town itself.

In another community, Laconia, N. H., local business men have laid their own plans to meet an expected housing shortage. A committee, appointed by the Chamber of Commerce, surveyed the town ward by ward and street by street and drew up a map on which vacancies, houses for sale, and lots available for low-cost housing were marked. Then the Laconia Housing Corporation was organized to raise a fund of $10,000 to be used for underwriting loans which local contractors and building men could not obtain under Title VI FHA mortgages. According to E. Harrison Merrill, head of the Chamber's committee, who described the plan in the March issue of *Banking*: "It was the opinion that this corporation could underwrite 10 per cent, as the local banks had gone on record as being willing to advance the 90 per cent under an insured Title VI mortgage. Thus the defense housing program would be taken care of by local institutions."

★

The Alien Worker Problem

While high government officials, including President Roosevelt himself, have repeatedly pointed out that it is not illegal to use aliens on war work, a good many employers seem intent on restricting their already straitened labor supplies by refusing to hire the foreign-born—even, in some cases, those who have taken out first papers. With sweeping investigations of discrimination in the offing, personnel men would be well advised to re-examine their employment practices, particularly if their plants are in New York State where new and stringent laws have been passed.

The employer, however, may be excused some degree of confusion on the subject. He has been warned to guard against sabotage, and his instinct is to be on the safe side by barring all aliens from the plant. And frequently the government itself does not let its right hand know what the left is doing. For instance, schools offering industrial training by arrangement with the U. S. Office of Education often limit enrollment to United States citizens, and even seek information on the citizenship status of the applicant's parents. On the other hand, the Army will induct friendly and neutral aliens as readily as citizens.

Actually, federal regulations governing the employment of aliens in war plants are simple: Aliens may work on any war contract not classified by the Army or Navy as "secret," "restricted" or "confidential." When a contract is so classified, the contracting officer has the authority to decide to what extent and in what way the classification provision of the prime contract may be relaxed to permit the employment of aliens on subcontracts. In any event, moreover, employers may appeal for permits to use their non-citizen employees on specific "classified" contracts. The procedure, as the President has explained it, is for the alien seeking employment on a secret or restricted job to obtain an application form from the U. S. Employment Service, which will aid him in filling out one side of it. After the employer has

filled in the reverse side, the blank is mailed to the contracting department, which will usually make a ruling within 48 hours. The departments have been instructed, the President said, to give "special and expedited consideration" to nationals of the United Nations and friendly American republics, and to aliens in certain other categories even if they are enemy aliens.

As the War Production Board has emphasized, the sole test is "individual loyalty to the United States." And among the 4,000,000 to 5,000,000 unnaturalized foreign-born workers in this country, there are enough loyal men and women to constitute a sizable addition to the labor supply.

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"No Smoking"

In Detroit last December, the army tank arsenal in one of the city's largest plants was temporarily closed because of a strike following workmen's complaints that they had been forbidden to smoke while on the job. A no-smoking rule had been in effect in the plant since its opening, and when foremen ordered all those who were smoking to leave the plant a large number of the approximately 1,500 men on the night shift departed in protest. Union stewards denied that there had been any authorization for a walkout. The company's statement read: "Thirty-eight employees were sent home shortly after midnight after they ignored repeated warnings against smoking on the job. Because of the fire hazard and the need for top production of tanks, there is a rule against smoking on the job. These men persisted in violating the rule."

Another report described a violation of no-smoking rules in a sprinklered printing establishment in an eastern city. "A slight fire developed, and it was determined that smoking on the part of several young men was the cause. It was found that the smoking could have been done by any one of four different young men, and as none of them would admit the identity of the offender, it was necessary for the management to dismiss all of them. It is interesting to note that this plant is highly unionized, as far as we know, and there were no repercussions from the union."

In several other plants in the country's industrial centers, employees have been discharged for their defiance of no-smoking regulations and manager-worker relations have been unnecessarily strained. One of the largest rubber manufacturing concerns in the country has revealed the problem to have been a persistent one for more than two years. Obviously, not only the fire hazard but the labor difficulty involved in the observance of no-smoking regulations are deserving of serious consideration by employers and labor leaders.

The most effective answer that has been found to date seems to lie in prescribing, *by mutual agreement*, certain restricted, safe areas within industrial plants in which smoking is permissible. In some foundries and metalworking shops, for example, smoking may represent so relatively insignificant a hazard that restrictions upon it may be reasonably relaxed. In designating safe smoking areas within a plant, it is desirable that the services of an insurance engineer or fire department inspector be enlisted. In almost every plant, such locations as company lunchrooms or recreation halls can be labeled safe areas if under careful supervision and provided with ashtrays, metal waste receptacles, and signs indicating the proper disposal of cigarette stubs and matches. Smoking, of course, has to be absolutely prohibited in many parts

of certain plants, and in some cases even the entire plant may come in that category because of the nature of the material used. In New York State, smoking is prohibited in all factories except by permission of the state labor department.

It is certain that in many plants any blanket restriction on smoking would defeat entirely the purpose of regulation. It would be likely to have unfortunate effects on personnel discipline and would undoubtedly encourage such abuses as leaving the job to take a smoke, outright defiance of the restriction while on the job, or open show of resentment toward superintendents and managers, any one of which actions might result in a serious slowing up of production or an actual strike. — *Quarterly of the National Fire Protection Association* 4/42

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Wage-Hour Policy on War Activities

A broad policy on wage-hour problems resulting from war activities has been announced by the Wage and Hour Division. The Division's memorandum covers such questions as overtime for ARP duties, pay for air raid or blackout duties, time spent during ARP training programs, etc.; and it affirms the Division's intention to respect solutions reached by collective bargaining agreements. Extracts from the Administrator's statement follow:

Employees frequently volunteer to serve outside working hours in watching or other duties for the purpose of protecting defense and war plants from fire or other damage caused by air raids.

Under the Fair Labor Standards Act an employee must be compensated for all hours that he is suffered or permitted to work for his employer. Thus, if the employee in this case volunteers his service directly to his employer, the time spent in watchman or air raid protection services constitutes hours worked for the employer for which compensation must be paid. Likewise, if the employee, whether or not he is a regular employee of the plant and however he may be selected to do this work, displaces a regular watchman or other regular employee, he must be considered as working for the employer and must be compensated accordingly.

On the other hand, if the employee volunteers his services to a federal, state or local governmental agency engaged in defense activities, and subsequently performs watchman or air raid protection services subject to the control and supervision of that defense agency at the plant where he usually works, the time spent in these services constitutes hours worked for that governmental agency. Governmental agencies are not subject to the Fair Labor Standards Act and their employees are not subject to the Act's requirements. Similarly, if the employee volunteers his services to a committee in a particular plant, composed of representatives of the employer and of the employees, and such committee has been recognized by the appropriate governmental agency as having charge of defense activities in the plant, and subsequently he performs watchman or air raid protection services subject to the control and supervision of such committee at the plant where he normally works, the time spent in these services constitutes hours worked for the governmental agency and as such need not be compensated for under the terms of the Act.

In any situation where during working hours the employee performs an activity for the employer during blackouts or air raid alarms, time spent by him on the premises of the employer must be considered hours worked for which the employer must make compen-

sation. He will be considered as performing an activity for the employer if he is required to perform any duties, including standing by with a sand bucket, acting as a "spotter," or performing any fire-watching functions.

On the other hand, if the employee is free to go off the premises or to a shelter or shelter area on the premises, or is free to go to some community air raid shelter and simply wait for the blackout or air raid alarm to end before returning to the employer's premises, the time spent during the blackout or air raid alarm is not to be counted as hours worked, provided, of course, that the employee performs no activity for the employer during this period.

Time spent by employees at defense or war plant air raid protection training programs, which they attend voluntarily after regular working hours, will not ordinarily be considered hours worked. This opinion is limited to situations in which there is a bona fide training program rather than the performance of a recurring service for the employer.

It has come to our attention that frequently an employer will wish to donate a day's production to the Red Cross and his employees will wish to donate their services on that day without receiving any compensation. Under the Fair Labor Standards Act, however, as long as the employer supervises the employees' work on that day, they are working for him and must be compensated in accordance with the Act's requirements for the hours worked on that day. It makes no difference in this case that the employer gives his product away to the Red Cross instead of selling it. The employees may, however, contribute their wages to the Red Cross either directly or by voluntary assignment.

In some few situations, however, an employer may turn over his plant on a particular day to the Red Cross and his employees donate their services on that day. This may occur particularly when the plant is quite small. In this situation time spent by the employees working on such day need not be considered hours worked for the employer if the Red Cross supervises the work and pays neither the employer nor the workers.

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Mechanized Industrial Relations

A maker of postage machines strives to maintain the best industrial relations in the United States. To further this objective, he has instituted a system by which figures on the exact performance of every employee are made up in tabular form whenever any production lot passes through any department. The figures show amounts produced, skills and aptitudes displayed, scrap and spoilage, and every other factor. When layoff time or promotion time or special bonus time arrives, the figures themselves must tell the full story. Personal factors, seniority and the like are reviewed also, but cold figures tell impartial stories and foremen are not permitted to have "pets." The system requires that timekeepers and inspectors supply the personnel department with clear totals which are made on electrically-powered printing adding machines. The personnel department keeps all original and gross totals, cross-tabulating them on punch cards. This plant has never had labor trouble.—*Purchasing* 1/42

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▶ Employee rating should by no means be considered a modern development. Strange as it seems, 450 years ago a well-designed rating plan was used in England to aid in selecting prospects for certain positions. This plan was surprisingly like some modern plans; in fact, successful features of the old system are proving equally successful in some current rating plans. — *The Standard Oiler* 3/42

THE INDUCTION OF NEW FACTORY EMPLOYEES*

By GEORGE E. YEOMANS

Starting new employees off on the right foot may decisively affect their future job performance and morale. Unfortunately, many concerns compelled to expand their working forces as a result of the defense program rely on hit-or-miss induction methods. Mr. Yeomans here appraises both formal and informal induction procedures, and offers a model program that might well be adapted to these companies' needs. The article has been condensed from the author's extensive report of a study sponsored by Massachusetts Institute of Technology.

"INDUCTION" as a formalized procedure is relatively new to American industry, at least at the factory-employee level. The importance of effective induction, however, has been widely recognized, and many companies have fostered more or less informal induction programs for years. Thus it does not necessarily follow that a company which has no formal induction procedure is not doing a satisfactory job of inducting its new employees. It may be doing an excellent job, even though its activities have not as yet been dignified by the term "induction." The purpose of this paper is to present the informal as well as the formal aspects of induction programs.

In general, it might be said that the objective of an induction program is to accomplish the following results and to do so as soon as possible after the new employee is hired:

1. To give the new employee confidence in himself
2. To give the new employee confidence in the company
3. To give the new employee an understanding of his job
4. To give the new employee an understanding of the company's personnel policies.

While the objectives cited are, perhaps, those of any effective induction program, it by no means follows that the methods of attaining them will be alike for all companies. With companies differing as they do, it seems but logical that their procedures for inducting new employees should differ also. Fortunately, a variety of effective induction devices are available, and few companies, if any, should experience difficulty in establishing a satisfactory procedure.

In a similar manner, the induction needs of departments and divisions

* Based on an investigation in industry by the author while on leave of absence from Eastman Kodak Company as a recipient of an Alfred P. Sloan Foundation Fellowship for special study in administration at Massachusetts Institute of Technology.

in a company may also vary, and the induction program will probably necessitate an analysis of the various jobs and of the age, education, background, experience and interests of the different employee groups.

The term "new employee" in the usual sense refers to new workers recruited outside the organization. In a sense, however, rehired employees are also "new" and may require a "refresher" induction period; they will certainly require follow-up. Similarly, transferred and upgraded employees will, in many cases, find themselves in unfamiliar situations and may, to some extent, be considered "new employees." Thus modified induction procedures will very often be needed for rehired, transferred and upgraded workers.

THE GRAPEVINE SYSTEM

In companies with informal induction procedures, considerable emphasis is frequently placed on the importance of securing the loyalty and cooperation of "key" men or "opinion molders." If these individuals possess proper morale, it is felt, they will, in turn, help to infuse it into the rest of the working force and the new employees.* These companies believe it inevitable that information will be disseminated through the so-called grapevine system. The problem, as they see it, is to insure, insofar as possible, that the information which the "opinion molders" pass on to newcomers will tend to promote good will toward the company and thereby give rise to spontaneous cooperation.

Undoubtedly an approach of this sort can and does work in certain situations, but any attempt to use it in all situations will be fraught with dangers. That this fact is widely recognized is indicated by the interest in more formal induction procedures currently displayed by those who have been compelled to expand their working forces as a result of the defense program.

However, to declare that the grapevine method of induction is generally inapplicable would be a misstatement. The effect of all induction processes, formal or otherwise, will always be tempered by the induction procedures conducted by the employees themselves. To leave the entire process to this latter group, however, is to expose the new employee to false impressions, misinterpreted policies, and a diversity of other misinformation, and may produce a dissatisfied and ineffective worker. And haphazard administration of the formal induction procedure may, of course, produce the same result.

* "Between 40 and 45 per cent of our employees we classify as 'opinion molders'," wrote an official of the Erie plant of General Electric Co. in the February, 1941, issue of *Supervision*. "These display the most active as well as the most vocal interest in shop affairs, company affairs, and community affairs. Every foreman can readily identify them. We try to have a large percentage of these 'opinion molders' in each informative meeting."

FIRST IMPRESSIONS

A company seeking to create a favorable first impression on the part of the new employee must start at the time of application, for this is usually the first point of contact. The place where applicants are interviewed, the technique used to receive them, and the individuals they encounter do much to mold these important first impressions; and the advantages of a satisfactory initial contact will far outweigh the effort and cost involved. That industry recognizes the importance of this preliminary step is indicated by the fact that many concerns make a point of interviewing all applicants, even though no jobs are available.

However, the first impression is by no means wholly a product of the application and selection processes. There remains the " . . . orientation to the job and its technical requirements, to the norms of conduct required of him by the formal organization, to the immediate group with whom he works, and to the broader company structure, its policies and opportunities." * This requires that the new employee be brought in contact with a number of people who, in his eyes, actually are "the company." It is important, then, that these individuals conduct themselves toward him in a manner which will evoke a feeling of good will.

In practice, there appears to be considerable divergence between what might be done and what is actually being done in the area of induction. The conditions described by a personnel executive of a large company perhaps typify those existing in a great many cases: " . . . Our induction process has been something of a hit-or-miss proposition and has consisted of little more than a brief talk with the department manager or superintendent and the distribution of a statement of our employment policies. . . ."

But at the same time it is significant that not only has the number of new and revised employee handbooks increased in the past few years but, more important, many handbooks are no longer intended merely to acquaint the new employee with regulations; they seek, in addition, to introduce him to the entire organization, to its policies and purposes. Furthermore, the "modernizing" of handbooks, publication of "reports for jobholders," and other recent innovations indicate the growing importance attached to courteous and considerate treatment of the rank and file.

Before discussing the various methods and instruments by which induction information may be presented, it would be well to point out that the induction process has dangers which may very well defeat its purpose if they are not recognized and overcome. There is, first of all, the danger of presenting a too-optimistic view of future possibilities—with destructive

* Roethlisberger, F. J., and Dickson, W. J. *Management and the Worker,* Harvard University Press, Cambridge, Mass., 1939, p. 586.

effect on employee morale when the future does not turn out so bright as it was painted. The steps necessary to avoid this pitfall are obvious and need not in any way detract from the effectiveness of the induction program.

Perhaps the greatest danger, however, is that the necessary information will not be presented in such a way as to afford genuine assistance to the new employee. In other words, the employee should not be compelled to do all the conforming; rather, the approach should be that of mutual adjustment, the company pursuing a procedure that not only benefits itself but also takes into account the interests of the new employee.

Closely akin to this problem is the danger of presenting the material to the new employee in too large a dose at a time. Furthermore, there are doubtless certain types of information which the new employee can best absorb after he has had some working experience with the company. With this in mind, it is apparent that much is to be gained by spreading the induction program over a period of several days or weeks.

THE WELCOME

Most companies welcome their new employees in one manner or another. The methods used vary from a personal welcome by top executives to a printed word of welcome in the handbook. The manager of one company, for example, makes it a practice on Friday afternoons to meet all employees hired during the week. In another company, the president personally interviews all new employees during the first month of employment. Many training programs include a brief introductory talk by a top executive.

The top executives of many companies, through limitations of time or distance or both, find it physically impossible to meet and greet their new employees personally. In many cases of this sort, the greeting function may be delegated to other executives – the employment or industrial relations manager or departmental or plant supervisor, for instance. In other cases, a letter of welcome signed by the president or some other top executive may supplement the personal welcome by plant or departmental executives. This letter of welcome may be sent to the employee's home address, or it may be incorporated in the employee's handbook, which, in turn, may be given to the employee at the plant or sent to his home address.*

Invariably, all the methods and instruments referred to above include, in addition to the welcome, a great deal of what might more properly be called "introduction to the company." The personal talk by the company, plant or departmental executive, whether delivered to the new employees

* Thus, the New Jersey Bell Telephone Co. sends two letters, signed by a vice president, to new employees. The first includes, in addition to the welcome, reference to two enclosed pamphlets, the first describing company policies and the second, company plans for employees. The second letter reinforces the welcome and refers the new employee to four additional booklets on employee plans.

individually or in groups—perhaps in conjunction with a training program—will usually include a discussion of the company's policies and other matters pertaining to the employees' welfare.

THE HANDBOOK

Perhaps the most frequently used device for acquainting new employees with the company and its policies is the handbook. The typical handbook usually includes the following data:*

1. Statement of welcome
2. Brief history of the company
3. Current facts—size, number of employees, etc.
4. A description of the company organization
5. A statement of company policies
6. A statement of employee services and plans
7. General instructions
8. Rules and regulations.

Inasmuch as the new employee will naturally feel somewhat bewildered in his new situation, information given to him verbally may not "register." For this reason, the handbook may prove a more effective instrument for providing information than a talk. On the other hand, a company which frequently modifies its policies will experience difficulties with the handbook method, since it will have to revise its booklet with each change in policy. This method also involves the problem of making sure that the employee actually reads the handbook.

One of the most effective means of insuring that the information contained in the handbook is absorbed by the new employee is to provide that its contents shall form the basis of a discussion or interview between the new employee and a representative of the industrial relations or employment department, or the department in which the new employee is to be located. This, of course, may be done both with individual new employees or groups. At the Farnsworth Television and Radio Corporation, for example, the company's policies are discussed with each new employee by the employment manager; and during the discussion an attempt is made to clarify any points in the handbook which the new employee does not understand. Opposed to this is the practice—apparently followed by many concerns—of merely passing out the handbooks in the hope that the employees will read them.

In addition to the methods and instruments already mentioned, there are many other devices that may be used to introduce the new employee to the company. A few deserve mention:

1. Pay envelope inserts—the RCA Manufacturing Company issues bi-monthly messages entitled "You and I and RCA" through this medium. The messages discuss the basic problems of the company.

* Robinson, O. Preston. *Retail Personnel Relations,* Prentice-Hall, Inc., New York, 1940, Ch. X.

2. Informal letters and notices distributed to employees or mailed to their homes—Servel, Inc., issues an annual letter signed by the president entitled "Facts About Our Business."
3. Bulletin board postings.
4. Special booklets—Johns-Manville Corporation issues numerous booklets under such titles as "This Is Our Policy on Group Life Insurance," "This Is Our Policy on Collective Bargaining," "This Is Our Policy on Wages," "This Is Our Policy on National Defense," etc.
5. Special annual reports for employees.
6. Employee magazines.
7. Newspaper releases.
8. Lunch hour meetings—including motion pictures and talks by executives.

INTRODUCTION TO THE JOB

The introduction of the new employee to his job will, in most instances, begin in the employment department, when he is interviewed before hiring. In many instances this preliminary interview will be followed by an interview with a representative of the department in which he is ultimately to be located. In both interviews the new employee is necessarily given considerable information about the nature of his job, the terms of service, the rules of conduct, the opportunities for promotion, etc. During this preemployment stage, there may be a tendency to oversell the job's possibilities — especially in times like the present, when the labor supply is limited and the demand acute. If this is done, however, employee dissatisfaction is inevitable when the possibilities outlined fail to eventuate.

When the new employee is ready to start work or training, the next step is to escort him from the place of hiring to the workplace or training room. This phase of the induction process is often more or less neglected. In practice, the manner of accomplishing it varies, although the following are perhaps the methods most commonly used:

1. New employee conducted to department by employment department representative, preferably by the interviewer.
2. New employee taken to department by messenger who performs introduction with or without card of introduction.
3. New employee sent to department unaccompanied but with a note of introduction.
4. New employee conducted to department by department or training representative.

When the new employee arrives in the department, he is first usually introduced to the department head, who may merely greet him (leaving to subordinates or to the training representative the responsibility of providing the remaining introductory information) or who may undertake all or part of the introduction job himself. The most common procedure is for both the introduction to the job and the subsequent training to be performed by the foreman or by an experienced employee designated by him. The latter is the so-called sponsor method, which may merely involve placing the new employee on the job near an experienced operator. Sometimes, however, the experienced man is responsible for "looking after" the

new employee as well, and this responsibility may include eating lunch with the new man for the first few days, talking to him about the company, the department, the job, and employee activities, and introducing him to other employees. In some companies the "sponsor" idea has been expanded to the point where a committee is designated to take the new employee in hand during the breaking-in period.

The "sponsor" plan undoubtedly has some advantages, but it appears to have several disadvantages as well. It may, for instance, give rise to lack of uniformity in training and operation methods; and a longer training period may be required. The plan is most effective, as W. H. Leffingwell has pointed out, "when carefully worked out instruction sheets are provided and the operator has 'the teaching art,' and the new employee is chosen because of his aptness for the particular type of work . . ." Many companies have found that the objections to the "sponsor" method can be overcome if the introduction to the job and the training are delegated to experienced instructors who devote all their time to these functions.

A MODEL INDUCTION PROGRAM

In summary, the following outline of a hypothetical induction program and its administration is presented. This outline represents but one approach to the problem, and obviously it cannot be considered applicable to all situations.

AN INDUCTION PROGRAM FOR NEW FACTORY EMPLOYEES

Participation of the Employment Department (or its equivalent)

A. Introductory information

1. Company—history, development, organization, management, products—also the industry, if this is thought desirable.
2. Personnel policies—what the new employee can expect of the company and what the company expects of him.
3. Terms of employment and general rules and regulations.
4. Employee benefit plans, off-the-job activities, self-improvement opportunities.

(The above information may be presented in booklet form or, better still, booklets may be used to supplement verbal explanations.)

5. Company or plant facilities.
6. Community facilities.
7. Job—general remarks about the department, its organization, personnel, type of work, hours, wages and opportunities.
   Introduction to company, plant or department executives.
8. Escorted to department.

B. Follow-up interview

This may be left to departmental supervision but should, in any case, be included. It presents an opportunity to answer any questions on the employee's

mind and to ascertain his reaction to the induction program. It may call for a repetition of some or all of the introductory information and may also include a tour about the plant.

Participation of the Line Organization

The following may be handled by line supervision or may be delegated to staff assistants or training supervisors:

A. Introductory information

1. Introduction to departmental supervision.

   If the information imparted by the employment department has all been given at one time, it will be desirable to repeat a great deal of the information on the company, its policies, etc. This information may be given by higher departmental supervision or by the new employee's foreman.

2. Introduction to new employee's foreman.
3. Departmental rules and regulations, safety, tour of department.
4. Departmental facilities.
5. Job—duties, standards, safety on the job, hours, wages, workplace, tools, use and care of equipment, etc.

   This, of course, may involve training for the job by an experienced operator, the foreman or a training representative.

6. Introduction to fellow workers—the relation of their jobs to new employee's. This may include assignment of new employee to sponsor with whom the new man may feel freer to talk and ask questions.

B. Follow-up interview

May substitute for or supplement employment department follow-up and may be conducted by foreman, higher supervision, staff assistant or training representative.

1. Company history, development, products, policies, etc.
2. Employee benefit plans, etc.
3. Terms of employment.
4. Company, plant and departmental rules and regulations, safety, etc.
5. Job—duties, standards, safety, etc.
6. Tour about the plant.

Throughout the entire program the attitude of those participating should be friendly and informal. Since the new employee will naturally feel ill at ease in the strange environment, the friendly attention given to him during this period will go far to speed the adjustment process which he must undergo.

The outline presented above, of course, takes little or no cognizance of the desirability of "spreading" the induction process over a period sufficiently long to allow the new employee to absorb and understand the material presented to him. The extent of "spreading" necessary to accomplish this will be dictated by a variety of factors, among them being the amount and type of information to be presented and the rate at which a particular new employee can absorb it. An alternative approach is the

presentation of the information in concentrated form, followed by the frequent repetition of the information considered most important and most needed by the new employee. But, from the new employee's standpoint at least, the "spreading" technique would appear to be the most satisfactory.

PLANNING INDUSTRIAL RECREATION

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Longer hours and the quickened tempo of war production have made employee recreational activities more important than ever before. The effects of increased tension on employee health and morale may be counteracted by an intelligently planned program of industrial recreation. The authors of this article have surveyed successful recreation programs in a number of companies, and from their study have drawn up a model plan for such a program. They explain how to organize a recreation association, how activities should be planned, and how a program may be financed for as little as 14 cents per employee per week.

AMERICA today is working as it has never worked before. Men and women are working like machines—machines running at top speed—but uppermost in the minds of our leaders today is the knowledge that men and women are not machines, that they are human and that the human element must be given prime consideration.

The Federal Government recognizes that all work and no play make Jack a dull boy. As a result, it is sponsoring a nationwide morale-building program and urging workers to play—to seek recreation which will afford them refuge from tension and make them more efficient employees.

In other words, the government regards recreation as a requisite part of our program for victory. Recreation makes for mental as well as physical fitness, and it is not improbable that we shall be reading some day in the history books that the democracies utilized their gymnasia and playfields to full advantage in the successful prosecution of World War II.

Information presented in this study was collected through conferences with recreation directors in plants which have carried on successful recrea-

tion programs for years. Further, constitutions and by-laws of a large number of employee recreation associations were analyzed in an attempt to discover the best form of organization.* Our conclusion was, briefly, that industry as a whole recognizes recreation as a pillar in the structure of industrial relations. Now it feels free, perhaps for the first time, to consider both work and play the province of industrial relations, without fear of charges of patronage or other repercussions.

WHAT THE LABOR BOARD FORBIDS

In the past, management has moved cautiously, never quite sure it was advancing on solid ground. For example, the National Labor Relations Board has in a number of cases ordered employers to abandon sponsored recreation. Such rulings have been made by the Board, however, only in instances where the employer has been adjudged guilty of violating the National Labor Relations Act by coercing or intimidating employees through such a program.

In one instance an employees' club which was supposed to be a social and not a labor organization was found to be a medium through which employees reported grievances, discussed problems of employment, and made representations to the employer for the correction of particular grievances and the improvement of working conditions. Since the organization was operated with funds supplied by the employer, the National Labor Relations Board ruled that it must be disbanded.

The Board ruled, too, against an industrial social club formed by employees of one concern for the purpose of "developing a spirit of cooperation and mutual understanding by establishing an orderly method by which employees may present to the company their views and recommendations on all questions of company policy with particular reference to health, safety, recreation, education and other similar matters of mutual interest." The Board ruled the "social club" was usurping the prerogatives of labor.

The Board, however, has not ruled against all recreation programs in industry. Its attitude toward the subject is simply this: "Recreational activity and business, recreational activity and the exercise of employees' right to self-organization and recreational activity and collective bargaining should be kept separate."**

* A more detailed report of this survey and the conclusions drawn from it may be found in the authors' monograph, *Planning Industrial Recreation*, Purdue University, Lafayette, Ind., 1941. See also the monograph, *Industrial Recreation: Its Development and Present Status*, by F. R. Eastwood and Leonard J. Diehl, Purdue University, 1940.

**Patterson, Garnett. "Attitude of the National Labor Relations Board Toward Recreation Programs," National Conference on Industrial Recreation, Lecture Reporting Service, Chicago, 1939, p. 14.

In other words, employers may encourage and support recreational activities openly so long as they do not undertake to give labor organizations of their choice the credit for those activities and thereby seek to defeat the right of employees to organize. If the recreation program is set up in accordance with these stipulations, it will not conflict in any manner with regulations established by the National Labor Relations Board, despite the opinion of many employers to the contrary.

BENEFITS OF INDUSTRIAL RECREATION

By this time, perhaps, having put the cart before the horse, so to speak, we should review briefly the benefits of industrial recreation. All evidence indicates the need for an agency or activity—recreation in this instance—to bridge the gap between individuals or groups of individuals within an industrial concern.

One of the immediate ways in which a recreation program benefits the employer, it has been found, is by bringing to the fore the natural leaders —the men and women who can take over responsible administrative positions within the industry. Another point is that it allows employer and employee—the chairman of the board and the lowliest laborer—to meet on a common ground. The greatest opportunity for this employer-employee personal contact is in recreational activities of the physical type. (The table reproduced herewith shows activities contributing to employer-employee fellowship.)

Bowling, for instance, promotes sociability, since it provides a playground where Joe, the laborer, can perform on equal terms with Jim, the boss. Joe, calling the boss "Jim," learns to know him as a "pretty good guy," while Jim learns that Joe is not just a minor cog in the industrial machine, but a human being with human hopes and human ideals who is deserving of human opportunity. This same good fellowship prevails between women employers and women workers on the bowling drives, since women, too, enjoy bowling, which is a type of recreation which requires no great physical prowess. Moreover, it is an activity in which there are no age limits.

These activities, when offered to employees in a sponsored program, afford the individual worker a wider range of wholesome interests than would otherwise be available to him and at a price considerably lower than he would otherwise have to pay. For example: Individuals with average incomes ($1,389) spend $41 a year for the following items: paid admission to movies and other spectator events; fairs, circuses, dances and amusement parks; equipment, supplies, fees, other costs for games and sports; radios, musical instruments and supplies; photographic supplies; children's

INDUSTRIAL RECREATIONAL ACTIVITIES

(By size of company)

Activity	*Percentage of Companies by Number of Employees*				
	1 to 100	101 to 500	501 to 2,500	2,501 to 10,000	10,001 and up
Bowling	35%	57%	69%	75%	100%
Softball	22	35	47	35	27
Basketball	10	22	9	20	18
Baseball	10	19	14	10	9
Golf	5	9	24	10	18
Ping-pong	3	3	7	5	..
Dances	3	..	2	5	9
Parties	..	3	2	10	..
Picnics	5	3	4	..	9
Interdepartmental Competition	..	3	7	..	..
Outside Competition	..	..	2	..	..
Others	10	11	17	15	27
Number of Companies	40	95	71	20	11

toys and play equipment; pets; entertaining (not food); dues; gambling losses; expenses for hobbies and collections, and sports clothing, vacations. Thus the individual with an average income spends less than a dollar a week for individual and family recreation. Most of that money is paid to commercial recreation operators, leaving little or none for non-commercial recreation.

Since a family—say a father, a mother and two children—can enjoy little recreation at the expenditure of less than a dollar a week, a well-rounded non-commercial recreation program, sponsored by industry (or the community), offers that family a much fuller recreational expression than it could obtain in any other way. It has been found that the average cost of a well-rounded industrial recreation program—for example, one directed by an employee association—is as little as 14 cents per week per employee.

Certainly, any employer in the country would be willing and anxious to spend 14 cents per week per employee to enrich the leisure time of his workers, even if such recreation did not accrue to his own benefit. The cost of the program per employee, of course, varies in direct proportion to the number of employees. An employer with 10,000 workers, for example,

can set up a diversified recreation program at a smaller cost per employee than an employer with 100 workers.

BASIC PRINCIPLES OF ORGANIZATION

In an attempt to establish basic principles of organization for industrial recreation associations, letters were written to 245 companies known to have such associations.

Responses were received from 163 companies, 40 of which submitted the by-laws of their recreation associations. Through analysis of these documents what might be termed a "model" of organization and administrative principles and policies was prepared.

Eighty-three per cent of the recreation associations studied were independent organizations, while 10 per cent were clubs within other associations, and 7 per cent were supervised by recreation communities within employee associations. From this organizational breakdown it became evident that administrative independence is desirable.

At the outset the industrial recreation organization should be incorporated under the laws of the state in which it is located. The incorporation, in most cases, will guarantee the organization the right to accept, take and receive property, both real and personal, by gift, grant, devise or bequest—and to manage, contract, hold, invest and dispose of it in the light of the purpose and objectives of the organization, as set forth in the constitution and by-laws.

Management and control of the recreation organization was, in 88 per cent of the cases, vested in a board of directors. Executive officers were the managers in 9 per cent of the cases, and executive committees had control in 3 per cent. The boards of directors included from five to 30 members, but the best procedure is, probably, to invest authority in a small group of individuals whose duties and powers are clearly defined.

Another point to remember is that there should be democratic representation. In 82 per cent of the associations, directors were elected on a representative basis. Members of the organization, meanwhile, were guaranteed the right to express their opinions on the policies and legislation of the organization. It is evident, moreover, that if equality of representation is to be assured within the organization, certain units, divisions or sections should be established. These units can be based on the natural divisions within the industry: plants, departments, zones, etc., or on otner classifications that prevail.

Membership should be all-inclusive. It must be remembered that industrial recreation organizations grow out of a definite need for the expression of recreational interests. Therefore, the program should not be planned

for a select few. Any individual whose source of income is derived from the company should be eligible to membership—employees and executives alike. Many organizations have extended membership to wives (or husbands) and children of the members; this procedure is worthwhile, but only after such a proposal has enjoyed the affirmative vote of a majority of the members.

CLASSES OF MEMBERSHIP

There should be at least four classes of membership: life, honorary, active and associate. Life membership should be extended to active members of the organization upon retirement from the company; this tends to prevent them from becoming socially maladjusted after retirement. Honorary memberships are for persons who have rendered outstanding service to the organization—professional men who volunteer service, for example. Active memberships should be held only by persons who have been employed by the company for at least one year, and only active members should be eligible to hold office. Associate membership is for persons who have been in the employ of the company for less than one year.

Although none of the associations studied listed the principle of financial independence, it has become established as basic, for all the associations had some source of income. It seems logical, in fact, to make every effort to create a financially independent industrial recreation organization. The relationship between the planned program and the attendant cost is such that any attempt to divorce the two will result in inefficiency.

SCOPE OF THE PROGRAM

Still another important point is that the program should be integrated. A majority of the programs studied had four major divisions: social activities, cultural activities, physical activities and outing activities. And while the popularity of a single division may overshadow that of the others, every division should receive the support of the entire organization. It may be that limitations will have to be placed on over-zealous groups and assistance and encouragement given to less active ones if internal harmony is to be maintained.

The suggested divisions of activities may be broken down as follows:

Social	Cultural	Physical	Outing
Banquets	Debating	Bowling	Camping
Cards	Music	Softball	Hiking
Smokers, etc.	Stamp Collection, etc.	Basketball, etc.	Skiing, etc.

Finally, special interests of individuals and groups should be encouraged by the organization, since it should seek to meet the recreational needs of all its members. Frequently the organization can furnish equipment and material to individuals who otherwise would be unable to take part in the activities they prefer.

PLANNING AND INITIATING THE PROGRAM

After the principles of organization have been outlined, attention should focus on planning and initiating the program. It will be found that the success of any recreation program depends on the number of individuals participating and, more important, on the way in which the recreational needs of the participants are met.

Several companies have expended large sums of money to build recreation centers for employees and planned extensive programs. However, the majority of these programs have failed because they reflected the recreational interests of the leaders and were not based on the interests of the groups to be served. The more progressive programs, it was found, are those which have evolved from the workers' interests and have been cooperatively established. Following is an organization outline:

1. *An organization committee* should be made up of members of management and employee groups who have the confidence and respect of the entire company personnel.

2. *A petition* should be circulated among the workers and executives to ascertain whether there is a desire for a recreation organization. Care should be taken that a small group does not sell management or labor on such a program when the majority of the company personnel is against it.

3. *An organization meeting* should be held. If the majority wants the recreation program, a temporary board of directors and the executive officers should be elected at this time. A constitution committee should be appointed to adopt a constitution and by-laws (previously proposed in tentative form), and later these should be placed before the entire group for ratification. Committees should then be appointed.

OBJECTIVES

The next step is to conduct an interest survey among the workers and executives to determine the recreational wants of the personnel. The well-rounded program for industrial workers should:

1. Provide equality of opportunity for all.
2. Provide a wide range of activities.
3. Continue throughout the year.

4. Provide equally for men and women.
5. Encourage family recreation.
6. Utilize fully all existing facilities.
7. Include passive as well as active forms of recreation.
8. Provide activities for different periods of free time.
9. Be related to other programs in the community.
10. Offer possibilities for varying degrees of skill, aptitudes and capacities.
11. Encourage individuals and groups to provide their own activities.
12. Furnish outlets for the satisfaction of the desire for social relationships.
13. Recognize the different tastes and interests of the individual.
14. Give persons who participate a share in the planning and control.
15. Place recreational facilities within the financial abilities of all the people.
16. Make possible the wisest use of available funds.
17. Provide outlets for creative expression.
18. Assure safe and healthful conditions for recreation activity.
19. Afford opportunities for developing good citizenship.*

FINANCING THE PROGRAM

The scope of an industrial recreation program, of course, depends on the amount of money which has been made available for it. The survey revealed that recreation programs have been financed from company funds more extensively than from any other single source. However, as the size of the company increases, company donations decrease in relation to the total expenditures. Employee associations rank second as a source of funds.

Efforts to obtain itemized accounts of the amounts spent for recreation met with disappointment, but it was determined that 44 per cent of the companies having from one to 100 employees spent less than $1,000 annually on recreation; 46 per cent of the companies having 101 to 500 employees spent less than $500; and approximately 50 per cent of the companies having 501 to 2,500 employees did not expend more than $2,000 annually. Companies having 2,501 to 10,000 employees had annual expenditures ranging from $500 to $60,000, while companies with more than 10,000 workers spent from $3,000 to more than $60,000.

Although many recreation associations have made no attempt to earn a portion of the funds necessary, most receive income from various activi-

* Butler, G. D. *Introduction to Community Recreation*, McGraw-Hill Book Company, Inc., New York, 1940, pp. 210, 217.

ties. Six companies have financially self-sustaining programs, the funds accruing from paid admissions and entry fees and/or dues.

SOURCES OF INCOME

The following analysis, according to size of company, of the sources of income has been made:

1-100 employees: Twenty-six per cent of the companies in this bracket have donated funds to cover the entire cost of the program. Dancing and baseball have each produced income for 2 per cent of the associations, while 12 per cent made no attempt to sponsor revenue-producing activities.

101-500 employees: Twenty-four per cent of these companies have furnished the money for the recreation programs. In 14 per cent of the cases no attempt at all was made to earn money. In the other 86 per cent, dancing, bowling, bingo, basketball and softball produced some revenue.

501-2,500 employees: In this division 19 per cent of the companies paid all expenses, while an equal number had no source of income. Dancing was the outstanding money-making activity—16 per cent sponsored dances to raise funds.

2,501-10,000 employees: Only 10 per cent of the companies in this group financed their programs, while 35 per cent had no earned income. However, bowling (25 per cent), dancing (15 per cent), and basketball (10 per cent) have produced revenue for program expenditures.

10,001-up employees: Not many of these companies (only 9 per cent) donated all the funds necessary for the entire program. Bingo, billiards, and concessions received equal support as income activities (18 per cent).

It was hoped that the study would make it possible to estimate the expenditures necessary for different types of programs. Unfortunately enough information could not be obtained to make projections which a company establishing an industrial recreation program could utilize. Nevertheless, it can be pointed out that there are certain basic factors that should be considered in establishing such a program.

It is probably much better, from a financial standpoint, for a company with 500 or fewer employees not to attempt to handle an entire program alone. It may find it more satisfactory to join other concerns in the community in forming a municipal industrial recreation association. A full-time director may then be hired to administer the combined program and assist in establishing employee recreation associations in each of the companies. The companies may carry on non-competitive recreation activities (handicraft, sewing, etc.) under volunteer leadership. Competitions may be guided by the recreational director and carried on both within the

plants and between the plants through cooperative action of the elected representatives from the various companies and the recreational director.

If a company has from 500 to 2,500 employees a separate recreation program should be established. A company of this size might engage a part-time director of recreation, who could also serve as a part-time personnel officer. Companies having 2,500 or more employees will, no doubt, need a fully developed industrial recreation program under full-time professional leadership.

Whether a municipal industrial recreation association or an individual employees' recreation association is formed, the program, we have concluded from our study, should be made self-sustaining through the following procedures:

1. Each employee should be assessed dues on a bi-weekly or monthly basis.
2. Concessions should be installed, the profits to revert to the employees' recreation association. These concessions, if properly selected, provide an extensive source of revenue.
3. Activities such as bowling and dances should be incorporated in the program in order to provide additional revenue. Bowling and dancing, however, demand a recreation building with alleys and an auditorium or gymnasium. If these events are held in a commercial establishment, the proprietor makes the profit.
4. To secure the physical plant for the recreation program, bonds may be underwritten by top management and/or employees. These bonds may be retired over a period of years from the revenue earned by the program itself.

In conclusion, it should be emphasized that recreation has a definite place in industrial relations. Recreation programs serve to bridge the gap between management and workers—the gap opened up by impersonal administrative techniques. Programs which do not usurp the prerogatives of labor organizations and which do not undermine the worker's right to bargain collectively are not opposed to the spirit and application of the National Labor Relations Act.

Successful programs are those which are based on the recreational wants of all the workers. Recreational programs, housed in their own recreation plants or buildings, can be self-sustaining to a large extent.

▶ REALIZING that loose war talk may upset employees, one war factory has devised a rumor board. When a worker repeats a rumor, his fellow workers now tell him to write it on the Rumor Board and sign his name. In most cases that ends the rumor.

—*The Office Economist*

A Dental Program for Industry

CONSIDERING the great interest that industry has shown in the general health of its employees, it is rather difficult to understand why most concerns have paid so little attention to dental health. A recent study appears to indicate that, of companies employing more than 500 people and having approved medical services, only one in 10 provides any dental service whatever.

It is possible that the expense entailed may be a deterrent factor, especially in the case of the smaller firms. According to a hypothetical dental budget drawn up by the Metropolitan Life Insurance Company, it would cost a company employing 1,000 persons $2,000 to establish an adequate dental office on its premises, and the annual running expenses would be $5,400. In a study of 59 company dental clinics made by the Division of Hygiene of the Pennsylvania Department of Labor and Industry, average expenses per patient were found to run from 64 cents to $9.45.

In the majority of cases the employer pays for the service, but the employer and employee may share the expense. This is sometimes arranged through organization of an employees' mutual benefit association to which the employer contributes. More frequently, the company provides space for a dental office and perhaps also a certain amount of major equipment. In this case a local dentist, who brings his own instruments and supplies, is generally employed on a part-time basis; and while the employees pay for the treatments, they save a good deal because the dentist, having no overhead, charges them less than he does his ordinary patients.

An ideal company dental service is one established under the direction of the medical service and headed by a qualified dentist. Complete and accurate records of the oral condition of every employee should be kept and a mouth examination made every six months, more frequently in the case of employees who come in contact with lead or mercury, acids, radioactive materials or carbohydrates. A prophylaxis should be given by the dentist or by a dental hygienist, and the employees referred to a private dentist for any reparative work needed.

Every applicant for a position should be required to have a mouth examination or to present a certificate from his dentist. No applicant should be hired whose mouth shows gross lesions of any communicable disease or evidences of infection.

—R. M. WALLS, D.D.S., at the Fourth Annual Congress on Industrial Health

Checkoff Plus Bonds

A NEW contract between the A. F. Aimone Co., New York City cotton goods firm, and an A. F. of L. local union combines a dues checkoff and war bond purchase arrangement designed to meet the employer's objections to wage increases on the ground that they are inflationary.

A $2-a-week wage increase provided for in the agreement will be paid directly to the union by the employer. The union binds itself to invest all this money, after union dues of $2 a month are deducted, in war savings stamps to be credited to the individual employees. When $18.75 in stamps is accumulated for the individual member, the union will exchange it for a $25 bond and turn it over to him. The union will handle all the bookkeeping involved.

—*Business Week* 7/11/42

EMPLOYMENT OF THE COLORED WORKER

By FRANKLIN O. NICHOLS
Industrial Relations Field Secretary
National Urban League

In this war for equality of all men, racial barriers in industry are steadily breaking down. More and more jobs are being declared open to the nation's 13,000,000 Negroes, and management is discovering that colored men and women can work side by side harmoniously and efficiently with white employees. The following article discusses the problems of race relations in industry and outlines the principles to be observed in the employment of colored workers. The National Urban League, of which the author is an officer, has done pioneer work in integrating Negroes into the national defense program.

THE needs of production are making the question of the employment of colored people no longer a matter of justice to an historically loyal people. There are many indications that labor shortages are developing. That colored young men and women possess the qualities essential to high production rates has long been known to the personnel departments of large corporations that have utilized these workers.

Since last year, as a result of the national program to expand the use of colored workers, a few enlightened corporations have either increased the proportion of these workers or hired them for the first time. Generally, this has been done as a contribution toward national unity and morale as well as in the interest of justice. Among these progressive concerns are Curtiss-Wright Corporation, Western Cartridge Company, Winchester Repeating Arms Company, Budd Manufacturing Company, Westinghouse Electric & Manufacturing Company, Philadelphia Transportation Company, and Newport News Shipbuilding Company.

With industry's manpower requirements expanding rapidly, more and more personnel departments are manifesting concern about the problems involved in the employment of colored men and women. It is important that the principles and methods of sound race relations in industry developed by the experience of specialists in this field be reviewed for the benefit of these departments. There is no denying that a number of pitfalls must be avoided if the best advantage is to be taken of this labor resource.

The subject may be divided into several broad divisions: the attitudes of personnel departments, principles governing employment, meeting of special problems, and the maintenance of morale and efficiency.

ATTITUDES OF PERSONNEL DEPARTMENTS

The right attitude on the part of personnel directors and assistants can do much toward assuring a plant satisfactory race relations, efficiency

and loyalty among colored workers, and a minimum of community annoyance. An important beginning is to eliminate inherited prejudices or conceptions of a supposed "place" of colored workers in modern industry. These beliefs have long prevailed despite wide experience showing that colored workers display the same ability as other races when given similar training and opportunity. Negro workers have the same virtues and faults as other workers. A recent survey of the experience of corporations utilizing Negro workers by the National Urban League disclosed a conviction by personnel officers that Negroes are good workers and that they give a good return on wage investment in a variety of skilled and semi-skilled activities. It is frequently insisted that Negroes make better foundry men than other races, that their performance in this work is better than in other industrial occupations. This is probably due to the fact that great care is taken to select Negroes who have the stature and ruggedness to do this kind of work. There is considerable evidence that white workers of the same ruggedness perform foundry work just as capably.

Questionnaires on the subject were recently sent to 102 employers by the National Industrial Conference Board. Eighty-five per cent of these employers reported that production levels were the same for colored and white workers. Five per cent stated production of colored workers was higher. Not only are a significant number of colored people satisfactorily employed by private concerns in various skills, but the records of municipal, state and federal governments show that they are holding positions in education, social work, public health, engineering, chemistry, and other branches of the technical professions. Analysis of the available facts would do much to correct the idea of special capacities inherent in race or color.

Next, an attitude of "white supremacy" has no place in this situation. Such a point of view results in unbalanced perspective and affects judgment in dealing with personnel problems. Aside from the irritation it inspires in the colored worker and frequently in the white worker, it will most certainly rise to plague management in many intangible and complex ways. Also, it will most certainly precipitate conditions that will encourage all the subversive elements that might exist within the plant itself or in the surrounding community.

The constructive attitude to take is that colored workers should be regarded and treated in the same manner as other workers. They expect merely justice, without special consideration or paternalism. Genius in dealing with human nature, which is the basis of good personnel management, must obtain in this case. The first principle of this is a fundamental

respect for personality. This is essential in dealing with men of any race or color.

SOME IMPORTANT PRINCIPLES IN EMPLOYMENT

Certain principles have been shown by experience to be sound guides in the use of colored workers. These are as follows:

1. They should be employed in accordance with American standards of living and with due regard for their self-respect.
2. They should not be employed as a threat to the interests of white workers—i.e., to lower wage levels, to serve as strikebreakers to block union organization of a plant.
3. Judgment of the efficiency and competence of colored workers should not be based on experience in using merely a few of them.
4. They should, if feasible, be introduced along with other workers when a plant is just being opened or is expanding, and both white and colored employees should be permitted to progress in their jobs together.
5. When colored personnel workers are employed, their main concerns should be selection, morale and efficiency. Under no circumstances should they be drawn into controversial situations that might develop between the employer and organized labor. For example, colored personnel employees have reportedly been used to dissuade colored workers from joining unions. The result of such a practice is bound to be resentment, disorganization, and conflict between both races.
6. Employers would do well to keep in touch with some responsible and experienced agencies dealing with race relations problems within the community. They will prove helpful in recruiting competent colored workers.
7. In common with other employees, colored workers are the object of labor organizational drives. Their participation in constructive labor activities or their membership in local unions should not be considered a measure of their appreciation or loyalty any more than is the case with other workers.
8. They should receive the same opportunities for training and upgrading as other workers.
9. There should be no differential in wages based on color.

MEETING OF SPECIAL PROBLEMS

Important problems are: the selection of workers, the refusal of white personnel to work with Negroes, Negro supervisors, the use of sanitary and recreational facilities, cooperation with state and federal agencies.

Selection of Workers: In the selection of competent workers, the same measures are applicable to both white and colored employees. Some

corporations are supplementing their regular procedures by the use of colored personnel assistants. For example, Curtiss-Wright Corporation, Western Cartridge Corporation, and Winchester Repeating Arms Company have made such staff additions. Colored workers are first interviewed by one of these assistants, who has been trained by the personnel office in practical methods of selection. Following this preliminary interview, successful applicants move into the general personnel office, where along with white workers they meet the employment officer and are usually assigned to work. Some of the advantages in this method are: It affords an opportunity for the trained Negro assistant to encourage and advise the young colored worker, who, in most instances, is entering upon a new phase of life—since industry with few important exceptions has been closed to him. The worker may also be advised how to meet interracial situations that might develop in the plant, and he may be prepared to counteract subversive elements that seek to utilize racial differences for the purpose of handicapping production. Incidentally, this type of morale work could well be developed as a means of fostering a cooperative attitude among white workers.

Refusal of White Personnel to Work with Negroes: Instances of white workers refusing to work with colored people appear to be decreasing. The pressure of production is influencing this situation. When the problem arises, it usually involves resentment against colored workers being introduced into the plant for the first time or being promoted from one category to another. This is a matter that has no simple solution. Sometimes firmness will readily dispose of the problem. In other circumstances, conference with labor leaders or shop foremen will bring about an adjustment. Educational measures have also proved of value in breaking down prejudicial attitudes. Furthermore, current pressure of production and the scarcity of labor should serve to alleviate the problem. The situation is one which frequently involves not only racial prejudice and fears for job security but long-standing community attitudes (as in the case of a plant located in a small town which for years has refused to allow Negroes to settle there). In certain instances, also, local unions have objected to Negro workers.

It should be helpful to review some recent experiences in this connection. Several accounts have appeared in the daily journals of corporations which have refused to surrender to racial prejudice. For example, the management of a large automobile concern, now converted to war production, was approached by a committee of white employees which served notice that all these employees would quit if the corporation carried out its plans to employ colored men. The management informed the committee that any employee who refused to work under the policies of the corpora-

tion was free to leave. This firm stand served to discourage the leaders, and none of the employees quit. In another instance, one of the country's largest airplane corporations became involved in a disagreement with organized labor. The race question was in some way drawn into the problem, though it had not been involved in the original issue. However, since labor turnover was beginning to increase in the locality, it was more or less essential that the corporation dispose of any plant conditions that would handicap it in utilizing all available workers. The management devoted careful study to the whole situation and concluded that its best strategy was to meet the challenge of race and not surrender to it. Before it came to an agreement on the original differences, it insisted that it would decline to rehire any of the strikers who refused to work under the interracial policies of the corporation. Significantly, none of the returning workers objected. Many stated they did not know what had caused all the trouble on the racial question.

Several firms have employed educational measures to overcome racial objections on the part of white workers. They prepare these workers for the integration of colored employees by assuring them of job security and demonstrating the need for additional labor. In one instance, a successful appeal was made to the patriotism of the white workers. In another case, the president of a large corporation took the significant stand that it was the obligation of industry to make a suitable proportion of its jobs available to qualified colored workers as a contribution to a sounder national economic and social policy. He accordingly decided to integrate colored workers into his plant. This firm employed some 12,000 workers and had never previously hired Negroes. The management first introduced a small number of carefully selected colored workers into the maintenance department. These men proved to be the opening wedge by which the corporation has been able to increase the number of colored employees over the past few months to 500 or 600. Many of these men are now being employed in semi-skilled occupations. In this instance, educational measures and conferences with shop leaders were utilized prior to the introduction of the Negro employees.

Negro Supervision: As colored workers enter industry on an increasing scale—a development which seems to be inevitable—the problem of upgrading them will confront many personnel men. It is essential to point out that these workers represent, in general, typical American workmen. This is particularly true of the youth. They are the products of the American school system. With this background, it is unreasonable to expect that there will not be among them those who will hope to advance as do

workmen of other races if they possess the necessary qualifications. Consequently, this problem demands due attention.

It is surprising to note how few personnel men are familiar with the great advances made in race relations in government offices and in certain private industries, where many qualified Negroes may be found holding supervisory positions. The Urban League, in a recently published pamphlet, *Speed Defense Production,* calls attention to examples of Negroes holding supervisory positions in steel, coal, glass, electric, sheet metal, automobile and shipbuilding industries. Several ammunition corporations are now developing colored foremen. In the needle trades, colored workers have long held supervisory positions. There appears to be only one sound procedure in this matter and that is to let it develop naturally. Where a colored worker reveals supervisory ability, give him an opportunity if an opening exists and then try to iron out any difficulties that may arise. Where colored and white workers work together and have grown to know and respect each other, in many cases no complications will ensue. Where colored workers possess outstanding ability, promotion has generally been made without plant difficulty. Like all problems involving human relations, the adjustment of different races within industry requires sincerity, planning and genius. But often these problems are not so complex as they appear on the surface. Despite the fact that colored workers have been, and are still being, denied opportunity of employment in many industries, they are utilized in a sufficient number of corporations to justify the conclusion that colored and white workers can work amicably under colored supervision where upgrading follows a normal course.

Use of Sanitary and Recreational Facilities: Whether sanitary and recreational facilities should be used jointly by white and colored workers is among the questions frequently raised by corporations planning to use colored workers for the first time. These facilities are not separated on the basis of race or color in any important corporation in any Northern community, investigations by this author indicate. A recent tour of firms in Connecticut revealed that several considered separate facilities based on race an unnecessary nuisance. The Aluminum Company of America, Winchester Repeating Arms Company, and the steel companies are among those which have met this problem successfully by refusing to establish separate facilities. Significantly enough, in most instances the question is seldom raised by the workers themselves except where Southerners have just been introduced into a plant.

With regard to recreational facilities, the experience of one important company—an ammunition concern—indicates that race relations are improved through the use of recreational facilities by all workers without

regard to race or color. Winchester Repeating Arms Company provides the same cafeteria and recreational services for its entire working force, which includes some 1,400 colored men and women. Here one may find white and colored workers bowling, playing cards or boxing together; and the company's veterans' clubs have both white and colored officers and members. The employees make use of the same sanitary facilities without difficulty. With respect to sanitary facilities, a personnel officer of another corporation suggests two fundamental policies to management: (1) to refuse firmly to establish separate facilities; and (2) keep all sanitary facilities scrupulously clean, with attendants in charge of them. With the emphasis that is placed on sanitation these days, the matter of cleanliness of sanitary facilities is most important. Both white and colored young workers are fastidious in their personal habits.

All this, of course, holds true for corporations in the North. The South is still wrestling with difficult interracial problems that affect all the functions of its economy. Some border cities like St. Louis are also swayed by this Southern sentiment. But in the great industrial centers of the North there is no reason for segregation of either sanitary or recreational facilities.

Cooperation with State and Federal Agencies: Because many governmental agencies are increasingly concerned with expanding the use of colored workers, it is well to present here an analysis of the origin, organization and significance of these agencies. This concern was inspired by a national public sentiment against racial discrimination, developed by private agencies representing both white and colored people. These governmental activities have the approval and the support of the American public, a large and influential section of the daily press, progressive industrialists, and labor executives.

For instance, there is in the War Production Board a special division (the Negro Employment and Training Branch) which deals with the training and employment of colored workers in America. This office is under the direction of a trained colored administrator, assisted by white and colored associates. The division maintains regional offices throughout the country.

Also, some months ago, the President issued Executive Order No. 8802 forbidding discrimination because of color, creed or nationality. A Committee of Fair Employment Practice, which is interracial in composition, was appointed by the President to implement this Order. In general, this Committee receives and investigates complaints of alleged discrimination. It holds hearings in public and in executive session. It is required to

investigate alleged discriminatory practices not only by private industry but also by government officials and agencies. In cases of deliberate efforts at circumvention or refusal to desist from discriminatory practices on the part of corporations, labor organizations, or governmental agencies, the Committee may cite the incident to the President. The Executive Order applies specifically to war production industries and federal departments.

Reasonable cooperation with these governmental agencies can best be rendered by the adoption of a direct and simple employment policy—i.e., to employ workers on the basis of capacity and skill without regard to race or color. Next, certain practices which have caused the government much difficulty in its efforts to organize for all-out production must be abandoned. Among these are the refusal to grant training opportunities within industry because of color; racial restrictions on training opportunities in the public school system; pressure on school officials to bar colored trainees from certain courses; requests to the local offices of the U. S. Employment Service for white workers only; refusal to upgrade qualified colored workers; attempts to circumvent the President's Executive Order through token employment; legal devices and the use of private employment agencies to avoid hiring colored applicants.

Aside from the injustices involved, the reduction of efficiency, and the expense and time required to remedy such conditions, these practices are reportedly being seized on by our enemies for propaganda purposes. Fortunately, the number of American industries endeavoring to meet the problems of race relations constructively and to expand the use of colored workers is increasing steadily.

MAINTENANCE OF MORALE AND EFFICIENCY

The methods customarily employed by personnel officers to promote morale and develop efficiency among white workers are equally applicable to colored employees. Special problems, however, require attention in some instances. These include the provision of good housing conditions for colored workers, the encouragement of proper community organization to provide recreational facilities, YMCA's, YWCA's, community centers, etc. Also, where a company is cooperating in legal control of undesirable environmental conditions, its efforts should apply equally where colored workers are involved. Next, the development of proper attitudes—of a feeling of "belonging" on the part of the colored worker—is most important. Finally, adequate provisions should be made to meet in a just manner race relations difficulties that may arise. But it is significant that the latter seldom develop when white and Negro workers are properly integrated.

As production demands are raised, the colored worker becomes an increasingly important factor in the manpower situation. The application of the principles outlined here, the fostering of sound interracial attitudes, and acceptance of the colored worker on an equal basis with other employees will assure reasonably good results in utilizing this rich labor resource.

First Decisions on Race Discrimination

THE first orders issued to implement the government's policy of combating employment practices which discriminate on the basis of race, color or creed require not merely cessation of such practices, but the submission of monthly reports on the basis of which the Committee on Fair Employment Practice may decide whether or not the orders are being carried out. The procedure is carried out under a Presidential Executive Order which specifies that all contracts let by government agencies should stipulate that the contractor will not discriminate against any applicant because of race, creed, color or national origin.

Ten employers against whom orders have been issued have each been required by the Committee to take one or more of the following steps:

1. Give each official in charge of employment written instructions to comply fully with the President's Executive Order and furnish the Committee with a copy of the instructions.

2. Give written notice to all employment agencies with which the plant does business that it will accept applicants for all types of employment without discrimination as to race, color, creed or national origin, and furnish the Committee with copies of the notice.

3. File with the Committee a monthly report showing the number and classifications of new workers employed, the number of Negroes, Jews, Catholics or other minority groups hired, and the classification of work for which they are employed.

4. Cease publication of help-wanted advertisements specifying "Gentile," "Protestant" or "White."

The Committee took the position, where complaints had been made of discrimination against certain groups, that the absence of employees belonging to the groups in question in other than custodial jobs constituted *prima facie* evidence that discrimination was practiced. Additional forms of evidence given probative weight include: advertisements specifying that applicants should be white, Protestant or Gentile; instructions to employment agencies containing similar limitations; statements by hiring officials that members of certain groups were not employed by the company.

In one instance, the Committee analyzed the company's selection from among 908 applicants, all of whom had attended the Illinois Institute of Technology. This analysis showed that 42.7 per cent of the Protestant applicants were hired, 36 per cent of the Catholic applicants, 15 per cent of the Jewish applicants, and none of the Negroes. The Committee concluded that discrimination had been practiced against Negroes and Jews.

—*Labor Relations Reporter* 4/20/42

TRAINING FOR WAR PRODUCTION: A CASE STUDY

How an organization of several thousand employees was brought together prior to the opening of a new plant and welded into a smooth operating unit, very largely through training, is related in this case history of the manning of Wright Aeronautical Corporation's new airplane engine plant at Lockland, Ohio. The study was prepared by the Training Within Industry Branch of the War Manpower Commission, and the procedures described here illustrate the practical application of the principles of training advocated by TWI.

BY means of organized training which is closely associated with the engagement of new employees, Wright Aeronautical Corporation is successfully manning, in record time, a new airplane engine plant at Lockland, Ohio, with the 10,000 persons needed for full-scale operations.

Ground was broken for the new 50-acre factory in July, 1940. Less than 12 months later—June 21, 1941—actual production operations were under way in the completed section of the factory.

This notable accomplishment is the result of assembling the operating organization in advance of opening the plant and is due also to providing training with the same careful planning and orderly execution as is given to buildings and equipment. While walls were going up and production lines were being installed, the organization was being projected and jobs were being analyzed as the basis for the program of recruitment and training. A training school was established, and the development of competent production employees and skilled craftsmen, as well as supervisors, kept pace with progress in building physical facilities.

TRAINING AS A POLICY AND A SOLUTION

The manufacture of the Wright airplane engine is almost entirely a precision operation. Most of the work is done to very close limits, and rigid inspection is consistently maintained. The phenomenal expansion of the company's Paterson, N. J., plant, accompanied by a continual improvement of the engine, has been feasible largely because intensive training has qualified large numbers of ordinary laborers to perform production operations at the high standard required. Faced with the impossibility of obtaining skilled craftsmen in sufficient numbers, the corporation was compelled to resort to breaking down skilled jobs into production operations and to training ordinary workers to perform them.

In consequence, the company has pursued training in its plants intensively and consistently. This began in a small way and its scope was

broadened as the need for production grew. It has made possible the assimilation of large numbers of unskilled persons, and its value is generally recognized throughout the organization. An outstanding feature is an apprenticeship system which is a model for the industry.

With this background, the training function was cast for an important role in projecting the Lockland plant. Thus the Lockland Training School began under good auspices—traditional acceptance of training throughout the parent organization, and a backlog of valuable techniques originated in the company.

The 10,000 workers needed to operate the plant at full capacity (in January, 1942) break down roughly into these groups:

8,000 in the machine shop
1,000 in the non-ferrous foundry
1,000 in the 80 test cells

The Wright Corporation's approach to its training problem embraces all the phases of a balanced training program essential to good results. These features include:

a. breakdown of skilled jobs into production operations
b. analyses of each job for production and teaching purposes
c. forecast of number of employees required for each operation (by progressive stages) until the plant is manned to capacity
d. pre-employment training of machine operators
e. on-the-job training of machine operators
f. consistent upgrading policy
g. apprenticeship training
h. supervisory training

FORECAST OF MANPOWER REQUIREMENTS

A detailed study disclosed the number of operators needed for each job and for each of the several stages of getting the plant into production—from the opening day to the date when normal output was anticipated. The chart which appears as Exhibit A is a typical forecast. It was made in March, 1941, and compares the number of employees that would be needed in March, 1942, with those actually on the payroll in March, 1941.

The complete organization was mapped at the outset and supervisory needs projected as well. Over 200 key supervisors were brought to Lockland from Paterson and other company factories early in the year, and other individuals at this and higher levels were selected for eventual transfer.

The Lockland organization took form early in 1941 on the basis of forecasts. Of course, it has been recognized throughout that it is not possible to anticipate final needs exactly and, for this reason, the organization

CINCINNATI DIVISION

WRIGHT AERONAUTICAL CORPORATION

EXHIBIT A

plan has been kept flexible so that it may be adapted to changed requirements and new developments. However, the basic plan has prevailed at all times, and it is a determining factor in all production and manpower schedules.

EMPLOYMENT PROCEDURE

Announcement of the building of the large Wright plant attracted a flood of applications for employment. The employment procedure is more inclusive than is customary where large numbers of new employees are being added to the rolls. The entrance procedure embodies investigation and testing designed to locate applicants who give promise of reliability and other stable characteristics. No interviews take place until a completed application (which can be obtained and returned in person or by mail) has been classified according to the job for which the person appears best suited.

The preliminary interview at the Wright employment office is held by appointment. If the applicant passes this first face-to-face contact, he is referred to the Occupational Testing Department to be tested in one of these three groups:

1. *Clerical*
   a. intelligence
   b. temperament
   c. clerical, typing or stenographic skills
2. *Mechanical*
   a. intelligence
   b. temperament
   c. mechanical ability

   } written tests
   d. performance in mechanical ability—manual test
3. *General*
   a. intelligence
   b. temperament

The employment supervisor then has the following four-part picture of the applicant who survives the test: (1) application blank, (2) work record, (3) interview, and (4) test results.

When a department head requisitions personnel, the employment supervisor refers to him candidates who have been selected on the basis of the four-part record. At this final interview the applicant is either accepted or rejected for employment. Those who are accepted are then examined by the company physician, photographed and fingerprinted. (The corporation's personnel card appears as Exhibit B.)

Applicants for jobs in engine assembly and engine testing (where special

EXHIBIT B

PERSONNEL RECORD

Name | Man No. | Date

Address | Occupation

Single / Married | Number Dependents | Nearest Phone

In Emergency Notify | Address

Class	Eff.	Merit Rating	Rate	Date Recom.	Date Received	Remarks	Class	Eff.	Merit Rating	Rate	Date Recom.	Date Received	Remarks

529

(face)

(reverse)

Warnings - Infractions of Rules, Etc.		Education and Experience					
Date	Nature of Warning	Education		Subject		Experience	
		Grammar		Arts		Assembler	Patternmaker
		High School		Business		Coremaker	Supervisory
		Vocational		Engrg.		Drafting	Toolmaker
		College				Drill	Welding
		Technical		Air. Fng. Mech.		Grinder	
				Drafting		Inspector	
				Foundry		Lathe Engine	
				Mach. Shop		Lathe Turret	
						Milling	
						Moulding	

training is necessary) are recruited through the Automotive High School of the Cincinnati Public Schools. The school checks applications for prerequisite training (graduation from a high school or vocational school, or several years' experience on internal expansion engines). Satisfactory applicants are referred to the Ohio State Employment Service to be tested for mechanical aptitude. Those who qualify are sent to the Automotive High School, which administers the Otis Intelligence and the Humm-Wadsworth Temperament tests. Physical examinations are then given by the company physician.

VOCATIONAL SCHOOL COURSE FOR MACHINE OPERATORS

The Cincinnati industrial area provides pre-employment training in Lockland, Middletown, St. Bernard and Norwood, as well as Cincinnati, and of these opportunities the corporation makes excellent use.

The Wright program is an outstanding illustration of the favorable results that grow out of constructive cooperation between a defense manufacturer, the municipal school authorities, and the State Employment Service. Arrangements for keying pre-employment training to Wright needs were made with all the schools in the immediate region.

The Cincinnati Mechanical Vocational School—part of the Cincinnati public school system—has conducted an intensive four-week training program for prospective machine operators for the Wright company. Candidates are selected and trained according to Wright standards and needs. The first week is devoted to related instruction: blueprint reading, shop mathematics, and use of measuring instruments. The following three-week period is spent in learning to operate a particular machine.

COMPANY PRE-EMPLOYMENT COURSE FOR MACHINE OPERATORS

Since January 1, 1941, the company has been conducting a pre-employment training school of its own for machine operators. It is referred to in this account as the Wright Training School. From the time the school was opened until production operations commenced in June, the course was of three months' duration. When the plant was opened, the course was intensified and the time reduced to four weeks. The purpose is to train specially selected men to become machine operators. Some of the graduates, it is expected, will eventually become lead men and setup men.

As in the case of the parallel course at the Mechanical Vocational School conducted simultaneously for the same purpose, admission requirements are graduation from high school or vocational school. A large proportion of those attending have spent two or more years in college.

Many have had previous experience in machine shops, but in most cases this dates back ten years.

Only men who gave evidence of capacity for leadership were admitted to the three-month course. From this group, following completion of the training period, have been selected the 100 odd lead men who supplement the 350 supervisors from the parent plant at Paterson. Men of the same caliber are being chosen for the present shortened four-week course.

The training staff of the Wright School numbers 30 instructors and is headed by the factory Supervisor of Training and an assistant. The teachers are first-class machinists selected for this purpose who have been trained in the specific operations involved and in the techniques of teaching. Each instructor is in charge of a group of machines and the trainees learning to operate them.

The Training School shop is equipped with the following machine tools, which are the ones most used in the plant: internal, external surface, and tool grinders; turret and engine lathes; screw machines; vertical and horizontal milling machines; radial and sensitive drills; gear cutters and gear hobbers. The machine tools are new. The men work on rejects of the parts they will process in actual production, and the factory environment is duplicated as closely as possible. Each trainee is rated daily by the instructor.

The first week of training is devoted to the related subjects: blueprint reading, use of measuring instruments, shop mathematics. The subsequent three-week period is spent on learning how to operate a machine. The nucleus of this training is the standard operation sheet, which lists the operations the trainee must perform in order to acquire skill and complete the job. Each of these sheets is based on a detailed analysis of the job from the teacher's standpoint.

These trainees receive no compensation, although the men taking the three-month course were paid from 35 to 55 cents an hour, according to the number of months spent in training.

ON-THE-JOB TRAINING

Following completion of the pre-employment course at Wright School or Mechanical Vocational School, the trainee is assigned to a regular production operation under the guidance of a well-experienced machine operator. After six to eight weeks spent in this fashion, the trainee qualifies as a machine operator. From then on, he is on his own responsibility under usual departmental supervision.

The manner in which the new employee should be introduced to his

foreman, lead man, and machine operator instructor has been defined. The major points are given in these "Directions for Supervisors":

When a learner comes to work in a department, the supervisor or foreman should see that he is properly introduced to the lead men.

The lead man should interview the learner to try to determine his qualifications for the job for which he has been hired.

Company rules, when and where he receives his pay, etc., should be explained to him.

The lead man should then introduce the learner to the machine operator who will be responsible for teaching him. Try to make the learner feel at ease. Remember you have a teaching job to do, and the more a learner feels at home the better fitted he is to receive instructions.

Explain to him these points: the part of the work-order system that applies to his job; where the tool crib is located; how tools, operation sheets, and parts drawings are withdrawn on checks.

Emphasize necessity of keeping surroundings as clean and orderly as possible.

Give the learner a list of the tools he will need.

Treat him exactly as you would want to be treated.

These brief instructions are reminders of the points stressed with lead men in their earlier "instructor training."

The directions are handed to the lead man by his foreman, who received them from the plant superintendent. This is done to inspire recognition throughout the supervisory force that training is an integral part of the production operation.

TRAINING FOR FOUNDRY WORKERS

The foundry is divided into three departments: core shop, mold shop, and cleaning room. The essential requirements for workers in the last departments are good health, physical fitness, muscular development, and age between 18 and 45.

In January, 1941, the company engaged 15 men between the ages of 18 and 22 who met those requirements. They were sent to Paterson and trained in core-making under special supervision. Eight weeks of such training is needed to produce a first-class core-maker on cylinder-head cores.

These men returned to Cincinnati, together with some special supervisors, to serve as instructors to another group of similar trainees. Under the guidance of these instructors, new groups should be able to do core work with about 50 per cent efficiency at the end of four weeks.

TRAINING ENGINE TESTERS AND ASSEMBLERS

Future employees of the Engine Assembly and Engine Testing Departments receive their first training in pre-employment classes conducted by the Automotive High School after selection according to the previously

described procedure. Two thousand such operators will be needed. The course is sponsored jointly by the U. S. Department of Education, the Ohio State Board of Education, the Cincinnati Board of Education, and the Wright Aeronautical Corporation.

Consisting of 300 hours' work, the course requires ten weeks. Sessions are held six hours a day for five days a week. Each class has an enrollment of 100 men. The school operates on three shifts, from 9 a.m. of one day till 6:45 a.m. of the next. Every 10 weeks 300 men are graduated. The first two weeks of the course is devoted to lectures and conferences, and the remaining eight-week period to actual assembly, disassembly, and inspection work. This shop training is supplemented regularly with short periods of instruction.

Early in 1941 the Wright company equipped the school with the same type engines as those to be built at Lockland. Other instruction aids such as tools and pertinent materials were also furnished. High school instructors were sent to Paterson and trained on actual work in the shop. All expenses except salary were borne by the company. Instructors from the corporation helped the high school set up the course.

The best 75 men in the first group of 300 graduates were selected to become engine testers and have been trained accordingly. The other 225 received training as engine assemblers and disassemblers.

UPGRADING

The Wright company's policy is to upgrade employees whenever possible. However, during the expansion from 2,900 to 18,000 employees, the problem has not been whether to upgrade or not but where to find enough employees capable of being upgraded, and one of providing enough supplementary job training to prepare them for upgrading. In many instances the drain on certain departments for men to fill better jobs has been so great that the practice was stopped temporarily at various times during the last three years.

The upgrading policy at the Lockland plant as presently defined is briefly stated below:

The nucleus of the supervisory staff was brought from the parent plant at Paterson. This is true as well of many key men, skilled workers and instructors.

It is expected that all additional instructors, lead men and supervisors will be recruited from the work force which is now being trained.

New workers are assigned to the machines for which they have received preliminary training. Most foremen are already familiar with the upgrading policy at Paterson, and it is anticipated they will not only

continue the practice but do more of it. In addition, the plant management will stress the importance of upgrading and urge that it be practiced at every opportunity.

As one of the first steps in the upgrading process, machine operators are encouraged to do their own setup work. This additional skill is recognized by an increase in pay.

Foremen are also encouraged to rotate jobs with qualified workers in order to develop a versatile and, hence, stable work force. Operators are shifted from job to job and department to department as schedules for individual parts are completed or changed. This provides an outlet for the skill of ambitious employees.

By means of a simple card record, the foreman reviews the progress of every employee quarterly. This assures periodic consideration of promotion, transfer, quarterly rotation to a new job, need for special training, and possible rate revision.

EXHIBIT C

Employee Progress Record Card

Name					No.				
Occupation									
Class	Eff.	Rate	Date Recom.	Date Received	Class	Eff.	Rate	Date Recom.	Date Received

Indicative of the upgrading policy is the expectation that the staff for production engineering can be recruited from machine operators and

lead men. This group is already familiar with machines and their capacities, production routines, and operation sheets, and has had shop experience.

APPRENTICESHIP AND SUPERVISORY TRAINING

A few craftsmen are being brought from Paterson to take over skilled jobs on tool, jig, fixture, and similar operations. It is planned to establish a formal apprenticeship program along the lines of the long-established courses of this character at the parent plant.

The Wright company plans to maintain a ratio of approximately one supervisor to 15 operators. Looking ahead, the management has projected a series of conferences patterned after the program at Paterson, with local adaptations. There will be considerable emphasis on labor relations as well as on methods of directing the working force. All supervisors are expected to be familiar with the employee rating procedure and the necessity for providing accurate information for each grievance, layoff, discharge or disciplinary case. Central records on these items are maintained in the new works.

The significant feature of this program is the sponsorship of it by the works manager of the new plant. This represents supervisory training at its best in that it becomes an integral part of the day-by-day management process. The training director, of course, will assist in planning conferences, determining problems that need attention, providing conference leadership, and giving help in the many ways that are necessary to a successful program.

This is a continuation of the policy which is pursued at the Paterson plant, where the general manager, treasurer, factory superintendent, manager of the license division, and other executives attend and participate in the foremen's meetings.

The specially selected machine operators and lead men, being trained in the company's pre-employment program, are expected to provide additional supervisors as the need develops. It is believed that the company has thus made provision for its complete supervisory force. However, if experience shows the need, qualified machine operators will be trained for lead men jobs, so that qualified lead men may move up into supervisory positions.

DEVELOPING AND OPERATING AN EMPLOYEE SUGGESTION PROGRAM

By H. C. MARMADUKE
Manager, Employees' Suggestion System
Illinois Central Railroad Company

What are the prerequisites of a successful suggestion program? Why do so many employee suggestion plans bog down? In this case story of a tested program, the author discusses these questions and shows how employee interest can be sustained when the program is under way. Now in its fourth year of operation, the Illinois Central suggestion system has yielded more than 58,000 suggestions to the company, and employees have been awarded over $65,000 for their resourcefulness.

THE solicitation of employees' suggestions is a practice almost as old as industry itself, and suggestion plans have been instituted by practically every type of business. However, it is a matter of record that only a few have been wholly successful. For a number of years we in the Illinois Central Railroad Company experimented with "homemade" systems to develop constructive thinking and elicit ideas from rank-and-file employees. While none had the desired results, we learned something from them all. Our experience indicated that there are six main prerequisites for a successful employee suggestion plan: (a) complete anonymity on the part of the employees making the suggestions up to the time the awards are announced; (b) the active, enthusiastic backing of top management; (c) utmost fairness and thoroughness in the consideration of ideas; (d) generosity in the granting of awards; (e) full-time supervision; and (f), most of all, company-wide faith in the plan, combined with a willingness on the part of all actively engaged in its administration to work hard and long to put the project over.

Unless all these conditions exist or are readily capable of development, my advice would be to forego the idea of a suggestion program.

The following table indicates the progress of the present Illinois Central employee suggestion system:

Suggestions Received:	First year	16,092
	Second year	18,014
	Third year	18,820
	Three months, fourth year	5,135
	Total	58,061

Number of Awards:	First year	1,147	
	Second year	2,123	
	Third year	2,445	
	Three months, fourth year	678	
	Total		6,393
Sums Authorized:	First year	$10,565.50	
	Second year	21,128.80	
	Third year	27,460.00	
	Three months, fourth year	6,650.00	
	Total		$65,804.30

Prior to the present suggestion program, our organization sponsored what was known as the Illinois Central Bureau of Awards. This was in existence from June, 1937, to March, 1939—a period of 21 months. The plan required the submission of suggestions over the signature of employees, although provision was made for anonymity during consideration of the suggestions. The response was unsatisfactory because: (1) the setup did not provide proper channels for the consideration of suggestions; (2) proper publicity to enlist the interest and consideration of employees was lacking; and (3) award winners received inadequate monetary recognition. A suggestion system cannot be successfully maintained under such conditions. The ineffectiveness of the Bureau of Awards plan is apparent from the fact that only 1,135 suggestions were received from 30,000 employees, only 29 were adopted, and but $475 was paid out in awards.

ORIGIN OF PRESENT PLAN

In December, 1938, a new president was elected by Illinois Central Railroad Company. Coming up through the ranks by his own efforts, this man knew there were many opportunities for those on the firing line to make constructive suggestions. Unfortunately, when he had been on his way up, suggestions from employees in the ranks were all too frequently discouraged and frowned upon, particularly when they emanated from the younger men. In appraising the situation, the new president felt that 30,000 experienced and loyal employees—with 30,000 brains, 60,000 eyes and 60,000 ears—should, with proper encouragement, be able to provide ideas that would improve the efficiency of operations as well as eliminate or control waste. He realized that the man behind the wheelbarrow and the man working at the lathe or desk knew more about his particular job than anyone else, and that if an opportunity were presented for the expression of ideas many worthwhile suggestions would be forthcoming.

A review of previous unsuccessful suggestion plans resulted in the president's decision either to discard the idea altogether or to adopt a plan that would really arouse employee participation. It was decided to engage

a firm of industrial engineers to survey the organization and install a tested system especially adapted to the company's requirements. The new plan went into effect on March 6, 1939, at which time its operating details were announced by the president. A small staff, headed by a manager and under the jurisdiction of the general suggestion committee, was appointed to devote its entire time to handling suggestions. This was a radical departure from previous policy, under which suggestions had been handled by a departmental employee who was so occupied with his own duties that suggestions received superficial attention. The establishment of the new system by order of the president served to assure employees that top management backed the plan and intended it to be fair and impartial.

The present system is based on the concept that every suggestion is an employee's brainchild and as such should be considered with a receptive mind in an endeavor to adopt it in whole or in part. Should any action whatsoever be taken—even contrary to that suggested—as result of thought initiated by a suggestion, the employee submitting it receives full credit and an appropriate award.

DIVISIONAL COMMITTEES

In addition to the general suggestion committee, whose membership comprises ranking officers from each major department and an employee representative, there are 14 so-called division committees which report to the general committee. Division committees receive all suggestions for initial consideration. These suggestions are mimeographed and distributed to committee members one week in advance of the meetings, which are held weekly by all committees. A typical division suggestion committee consists of the superintendent (chairman), chief clerk (secretary), master mechanic, train master, division storekeeper, an employee's service club president, division traffic agent, and a traveling auditor. These men discuss and investigate the merits of the suggestions, and the suggestions are then either rejected or recommended to the general committee in Chicago for final action. The local groups are best qualified to recommend awards because they are familiar with local conditions. Recommendations for awards are forwarded to the office of the manager, where they are summarized and distributed to members of the general committee. Prior to the weekly meeting of this committee, they are fully investigated by each department's representative on the committee who is in a position to take necessary executive action. Final decisions are made by the general committee so that awards will be comparable and in conformance with system practice. This procedure also provides a check against duplicate awards for the same ideas. To insure that good ideas are not overlooked, the sug-

gestions rejected by the division committees are also forwarded to the office of the manager, where they are frequently reviewed by committee members. The company realizes that what seems impractical today may, in tomorrow's light, prove a worthwhile idea. Many suggestions have thus been reconsidered and subsequently adopted on the initiative of the suggestion committees. This in itself has had a stimulating effect on the employee body. To prevent the plan from interfering with other work, the committee members are changed from time to time; this also tends to expose more officers to the operation of the suggestion system, with increased interest on their part as a result.

ATTITUDE OF ORGANIZED LABOR

The question naturally arises of how labor organizations react to such a program. In our case we emphasized from the beginning that the object of the plan was not to abolish jobs; rather, through the reduction of waste and traffic claims, through improved efficiency, and through new business we intended to create a fund that would aid in stabilizing or increasing employment and otherwise benefit the employees who had made such improvements possible. Shortly after the program got under way, the president invited the General Chairmen's Association, representing some 17 labor organizations, to select one of their men as a member of the general suggestion committee who would have coequal voting power with the railroad officers on the general committee. This representative has been present at weekly meetings and has taken an active and important part in the discussions.

The suggestion blank (illustrated in Figure 1) carries the unconventional admonition, "Do not sign your name." The form, which is addressed to the suggestion committee, is numbered identically at both top and bottom. The employee fills in the date, and on the lines following, beginning "I suggest that," formulates his suggestion as clearly as possible. The bottom of the blank contains several questions: "Is this your original idea?" "Is this suggestion being submitted by one person?" "If not, by how many?" "I think this suggestion should be adopted because . . . " Instructions for submitting suggestions, together with the regulations governing the plan, are printed on the reverse of the forms to aid employees in the proper submission of ideas. The stub of the form is then torn off and retained by the employee. The status of the suggestion after its submission is reported on in weekly bulletins, and the name of the employee is not disclosed until, and unless, his number appears as a winner—at which time we obtain his name, title and address so that a draft may be prepared in his favor and a personal letter of congratulation be sent him by the

No. 5015 SP

EMPLOYEES' SUGGESTION BLANK

SEE EXPLANATION ON REVERSE SIDE

To the Suggestion Committee:

Date_____

I suggest that_____

* * Do not sign your name * *

1. Is this your original idea?_____
2. Is this suggestion being submitted by one person?_____
   If not, how many employees are jointly submitting this suggestion?_____
3. I think this suggestion should be adopted because_____

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Thanks for the suggestion! But don't stop with this. Remember, the more ideas you submit, the greater your opportunity to win a cash award. Let's hear from you again next week and every week!

No. 5015 SP

DETACH AND KEEP THIS STUB

FIG. 1 (Actual size, 9⅓" by 5⅓")

president. The weekly bulletins disclose under group headings the progress of suggestions through the channels of judgment and awards. If suggestions are not adopted, employees are notified through the bulletins, and an opportunity is provided for making a more complete explanation than is possible under the general headings on the bulletins.

The minimum award of $5 is paid for ideas of a minor nature whose benefits cannot be measured in monetary terms or, if measurable, are valued at $50 annually or less. In some instances, more than this minimum is paid for a suggestion which is considered more valuable even though its benefits are also of an intangible nature. There is no maximum award! Where a suggestion results in a saving or profit that can be determined, an award approximating 10 per cent of the gross savings for the first year is paid the employee.

PROMOTING THE PLAN

In promoting the program, we have not depended solely on word-of-mouth advertising; liberal use has been made of printers' ink. Colorful weekly thought stimulators (Figure 2) are displayed over the suggestion boxes which are distributed throughout the Illinois Central System—in our shops, stations, offices, roundhouses, freight houses, etc. These displays keep the suggestion system constantly in the minds of the employees, and at the same time offer specific subjects for suggestions. This extensive promotional campaign has paid big dividends.

To counteract employee discouragement, which is apt to arise when suggestions are rejected, we have used posters reading: "Don't be discouraged if your first suggestions aren't all hits," and "All stars must train, so train your thoughts for crack suggestions and you will become a star too." Some of our posters call attention to our part in the war effort and solicit suggestions on how we can improve our transportation facilities and service. Stimulation of the subconscious mind by this method may require some little time, but the trend of suggestions has demonstrated that these posters serve their intended purpose.

Brightly colored, eye-catching monthly award bulletins, listing all the month's winners by their divisions, are posted throughout the Illinois Central system. Comment from employees has reflected their appreciation of this method of recognition.

Realizing that one good idea leads to others, the suggestion system manager has prepared a series of articles describing worthwhile suggestions that have been adopted. These appear monthly in the *Illinois Central Magazine* and are accompanied by illustrations depicting both the old and

When You Waste Materials You're Squandering Pay-roll Dollars!
SAFETY FUSES
LANTERNS, FLASHLIGHTS, ETC.
TORPEDOES
COAL SCOOPS
OIL CANS
HAMMERS
MAKE A SUGGESTION ON HOW TO ELIMINATE WASTEFUL USE OF SUPPLIES AND SHARE IN THE SAVINGS
MAKE A SUGGESTION EVERY WEEK
JUNK BUSINESS
Is the Only Industry that thrives on WASTE
JUNK
TELL US HOW TO ELIMINATE IT!
MAKE A SUGGESTION EVERY WEEK
LETS STRIVE FOR PERFECT SHIPPING
ALL OTHER CAUSES
IMPROPER HANDLING IN TRAINS, YARDS, OR STATIONS
CONCEALED DAMAGE
DELAY
LOSS OF OTHER THAN ENTIRE PACKAGE
DAMAGE TO UNITS OF EQUIPMENT
TRAIN ACCIDENTS
FIRE, HEADING AND CATASTROPHIES
SHOW US HOW TO CUT CLAIMS AND SHARE IN THE SAVINGS!
Crack Train Service
DEPENDS ON THE "ALL CLEAR" SIGNAL
WE MUST DEPEND ON NEW AND PRACTICAL IDEAS TO KEEP UP WITH PROGRESS. Your Idea FOR IMPROVING FREIGHT OR PASSENGER SERVICE MAY WIN A BIG CASH AWARD!!
MAKE A SUGGESTION EVERY WEEK

Copyright by Industrial Equities, Inc., Chicago

FIG. 2: Weekly Thought Stimulators

new operations. The articles have proved highly effective in stimulating and maintaining interest.

As an ex officio member of the division committees, the manager also attends their meetings frequently, and his educational talks before employee groups have done much to keep interest at a high pitch.

The program has yielded both expected and unexpected results. At this writing we are in the first quarter of the fourth year of operation of the new plan. During this entire period, in sharp contrast to previous experience, we have received 58,061 suggestions, of which 6,393, or 11 per cent, have been adopted. Employees have been awarded more than $65,000 for their interest and constructive thinking. Awards have ranged from the minimum of $5 to a maximum of $1,863. Among the recent awards have been some of $1,000, $680, $675, $530, $430, $400, and other substantial amounts, each of which represented 10 per cent of first-year savings to the railroad. These are impressive figures, but when we contrast the 39-month receipt of 58,000 suggestions with 1,135 under the old 21-month plan, 6,393 awards with 29, and the payment of more than $65,000 in awards with $475, the record is even more notable.

One may naturally ask, "How do the number and quality of suggestions during the current year compare with previous years in which the plan has been operative?" During the first 12 months we received an average of 306 suggestions per week; during the second year the suggestions averaged 346 per week; for the third year the average was 362 per week. The average per week during the first quarter of the fourth year is 370. One of the most important results has been the increased interest of employees in the railroad's *over-all* operating efficiency. In other words, employees have been induced to think in terms of the entire organization instead of their respective departments. They have come to realize their own significance in a vast and efficient transportation system.

Another important result has been the development of leadership. One of our Passenger Department employees has received 71 awards since the start of the plan. His nearest competitor has won 63 awards. Others, both male and female, are frequent repeaters, and they exhibit a marked interest and intelligent understanding of the railroad's operation.

Typical of the ideas which have been received from employees are the following:

> Provide special dishes, utensils and menus for children on dining cars as an added service to patrons. Intangible benefits; award, $5.
>
> Change watering facilities for locomotives, thus eliminating waste. Saving estimated at $50 per year. Tangible saving; award, $5.
>
> Install electric lights on footboards of new Diesel engines as a safety measure. Intangible benefits; award, $10.

Install loudspeakers in interlocking tower to facilitate movement of trains through a congested area. Annual saving based on improved operations estimated at $450. Tangible benefits; award, $45.

Install two crossovers with spring switches so that main track may be converted into a passing track to expedite train movements. Annual saving to the railroad, $2,500. Tangible benefits; award, $250.

Eliminate all-copper hammers for inspection work and substitute soft-steel hammers with copper inserts in each end. This device has not only proved very economical but at the same time has released copper for our nation's war effort. Savings were estimated at $2,200 per year, and an award of $220 was made. A further check revealed actual savings to be $2,877, and an additional award of $68 was made to the suggester. Total award, $288.

Use of industrial propane gas instead of artificial gas. Reduction in operating costs, $4,000. Tangible benefits; award, $400.

Reclaim passenger car storage batteries after they have completed their accepted useful life of 14 years. Use of method proposed by this suggester has added five to seven years to the life of these batteries. Tangible savings, $6,799; award, $680.

It has been our experience that those serving on division and shop committees acquire a broader conception of the railroad's operation as a whole. Heartier interest and greater cooperation among departments have resulted. In addition, service on the local and general committees has helped fit junior executives for greater responsibility. Indeed, it is such intangible benefits as these, resulting from the constructive thinking of both employees and officers, which have justified the program even more than the dollars-and-cents savings achieved.

Relieving the Organization Bottleneck

A NEW plan for decentralization of manufacturing operations to divide the tremendous task of war production into readily manageable units is being introduced into plants of the Sperry Gyroscope Company, Inc.

There is a Central Organization composed of officers of the company, their assistants, the Sales and Service Departments, Research and Production Departments, Production Planning and Procurement Departments, the Treasury Division, and the Personnel Department. Each of the three plant organizations is under the supervision of a plant manager, who is responsible for the manufacture of all products assigned to his plant by the Central Organization. Each plant is set up as an autonomous unit, comprising Machining Assembling, Engineering, Product Engineering, Accounting, Plant Maintenance, and Personnel Departments.

The Central Organization will be relieved from operating pressure to determine major objectives and formulate plans for attaining them. By the concentration of specialists there, Sperry expects to insure uniformly superior procedure throughout the company and to maintain flexibility and efficiency in the disposition of personnel, material, facilities and specialized assistance. Finally, by letting the decentralized manufacturing units concentrate on production, the company hopes to get vitally needed products into the hands of the military services with maximum efficiency.

—*Dun's Review* 6/42

A STUDY OF EMPLOYEE ATTITUDES TOWARD VARIOUS INCENTIVES

By MILTON L. BLUM and JOHN J. RUSS
College of the City of New York
and
Vocational Service for Juniors

Wages are not the primary factor in job satisfaction, according to this attitude study of 286 workers. Such a finding corroborates the results of prior investigations in the field. Advancement and job security, the authors have found, rank well ahead of the pay envelope as factors in over-all morale. Their article offers a number of other highly significant conclusions, and outlines a technique of attitude measurement that should have many possible uses for industry.

THE problem investigated here is to determine the relative importance attached to various incentives by employees. In this study, five of the more widely used incentives were considered, namely: salary, security, supervisor, hours of work, and advancement.

It is the belief of the author that the financial incentive is overemphasized. Many of the studies that have been conducted in the field tend to find that this incentive is not of the utmost importance.

Watson[1] reviews a number of studies on work satisfaction and in none is the financial incentive rated higher than third. Houser[2] lists salary increase as twelfth in order of importance, on the basis of attitudes of 100,000 employees in large corporations. De Vyver[3] found that the most common complaint of unionized workers was the request for new openings. Seniority disputes ranked second. Wages were not important as a cause of complaints. In the language of our report it may be stated that advancement and security ranked first and second, and both were considered more important than wages. Hall and Locke,[4] as a result of a study using the unguided interview technique, conclude that wages is the primary incentive and supervisor is the next most powerful factor.

This study attempts to determine the relative importance of the five aforementioned incentives, using the paired comparison technique. This

[1] Watson, G. B. "Work Satisfaction" (pages 114-124 of *Industrial Conflict*, The Cordon Co., New York, 1939).
[2] Houser, J. D. *What People Want from Business*, McGraw-Hill Book Company, Inc., New York, 1938.
[3] De Vyver, F. T. "Requests and Complaints of Unionized Workers," *Personnel Journal*, March, 1941.
[4] Hall, P., and Locke, H. W. *Incentives and Contentment*, Sir Isaac Pitman and Sons, Ltd., London, 1938.

method was used because it was believed that it would allow for a more realistic consideration of the situation insofar as a specific choice between two alternatives must be made. In life, rarely if ever does one incentive or motive operate to the exclusion of all others.

The attitude of an individual worker may best be considered to be the integration of a complicated combination of motives. A questionnaire was distributed to a group of 286 gainfully employed people on a personal interview basis. The age range of the subjects was between 17 years and 60 years. The range of occupations was complete and included those in the unskilled manual labor to the professional groups. There were 181 males, 72 of whom were married, and 105 females, 26 of whom were married. All subjects resided in the New York City area. The questionnaire used in the study is reproduced on page 441.

An examination of the questionnaire reveals that each incentive is compared with the other four. Actually, this results in 10 comparisons. Each time an incentive is preferred over the other in the comparison, a score of 1 is assigned to that incentive. A maximum of 10 points is then distributed among the five incentives. Consider, for example, the following score:

Salary	1
Security	1
Supervisor	1
Hours of work	4
Advancement	3

This score would mean that the individual checked salary once, out of a possible five comparisons, checked advancement three times out of a possible five comparisons, etc.

The subjects of this study were given the questionnaire and were told to answer it as it applied to their own feelings rather than to any general attitude on the topic. The purpose of the questionnaire was not discussed with any subject prior to his completing the blank.

RESULTS AND INTERPRETATIONS

The authors recognize that the number of subjects used in this study is small and, therefore, the interpretations and conclusions may be in error because of the limited sampling. It is conceded that a larger and more diversified sampling might result in different interpretations of the data. It is to be noted that divisions of our sampling yielded stable results. The total sampling was divided into thirds, according to the time in which the interviewers returned the questionnaire. From the following table it appears that not only are the ranks of the various incentives similar but only

very slight differences in the averages exist. These data are presented to indicate the reliability of our sampling.

TABLE I

Average Score of First and Third Groups

Returning Questionnaire

	Salary	Security	Supervisor	Hours	Advancement
First Third	1.64	2.75	1.36	.82	3.43
Third Third	1.76	2.66	1.31	.82	3.48

The results of this study are therefore presented not so much to indicate absolute findings but rather to illustrate the possible uses to which this questionnaire can be put.

The results depict the attitude of males and females toward the various incentives. Table II presents the average score on each incentive for the groups. In addition, the number of times a particular incentive is preferred in relation to the absolute degree of preference for that incentive is presented in percentage form.

An analysis of the results presented in Table II indicates that the males and females tend to agree as to the relative importance of the various incentives used. The single exception is that the females rate supervisor relationship ahead of salary. In the male group this is reversed. Both groups rate advancement and security in first and second place and agree

TABLE II

Scores and Percentages for Each Sex on the Questionnaire

	Males		Females	
	Score	Percent of total score attainable	Score	Percent of total score attainable
Salary	1.84	46%	1.43	39%
Security	2.77	69%	2.86	72%
Supervisor	1.33	33%	1.79	45%
Hours of Work	.59	15%	.86	21%
Advancement	3.47	87%	3.06	76%

Sex.....Age.....Married or single.....Title of present job.....

Circle number applying:

How many jobs have you held?.....1 2 3 5 8 10 More than 10

How many years have you been employed?.....1 2 3 5 8 10 More than 10

How many years with present employer?.....1 2 3 5 8 10 More than 10

How many employees in present firm?.....5 10 25 50 100 More than 100

In the following list, please check one item in each pair which you consider more important to you in a job. There is no correct or model answer. Each answer is indicative of your attitude.

.....Receive more pay and have an insecure job, or
.....Receive less pay and have a secure job.

.....Have a friendly supervisor and work more hours, or
.....Have an unfriendly supervisor and work fewer hours.

.....Receive more pay and have no advancement possibilities, or
.....Receive less pay and have advancement possibilities.

.....Have a secure job and work more hours, or
.....Have an insecure job and work fewer hours.

.....Have a friendly supervisor and no advancement possibilities, or
.....Have an unfriendly supervisor and have advancement possibilities.

.....Receive more pay and have an unfriendly supervisor, or
.....Receive less pay and have a friendly supervisor.

.....Have a secure job and no advancement possibilities, or
.....Have an insecure job and advancement possibilities.

.....Receive more pay and work more hours, or
.....Receive less pay and work fewer hours.

.....Have a secure job and an unfriendly supervisor, or
.....Have an insecure job and a friendly supervisor.

.....Work fewer hours and have no advancement possibilities, or
.....Work more hours and have advancement possibilities.

Interviewer.....

ATTITUDE QUESTIONNAIRE

that hours of work are least important. The males consider advancement and salary much more important incentives than the females.

Hall and Locke[5] report that men are more eager for promotion than women. The females consider supervisor relationship to be more important as an incentive than the males. Security and hours of work are not statistically differentiated within these groups.

A further fractionization according to marital status for these groups was made, and the results obtained are presented in Table III.

TABLE III

Attitude Toward Various Incentives of the Sexes According to Marital Status

	Males		Females	
	Married	Single	Married	Single
Salary	46%	46%	34%	36%
Security	76%	65%	65%	73%
Supervisor	32%	34%	51%	45%
Hours of Work	13%	16%	29%	18%
Advancement	83%	89%	71%	78%

Considering the married versus the single male groups, we find that both attach approximately the same importance to salary, supervisor and hours. The married male group attaches greater importance to security. The single male group attaches greater importance to advancement. Among the females, no statistically reliable differences are obtained among the various incentives with the single exception of hours of work. The married female group attaches greater importance to working less hours than the single group. Married males place greater emphasis upon security than married females. The single females place greater emphasis upon security than single males. The married females attach greater importance to the supervisor than the married males. This difference is much greater in the comparison of the single females and single males.

Attitude toward salary in both sexes is unaffected by marriage. This finding is similar to that reported by Cole.[6] Married males care least about the number of hours worked, and married females care most. No difference

[5] Op. cit.

[6] Cole, R. J. "A Survey of Employee Attitudes," *The Public Opinion Quarterly*, September, 1940.

is observed between the single males and the single females. The advancement pattern resembles the pattern for the sexes.

Inasmuch as the attitude toward work may be a product of age, the male and female groups were separated into the following age categories: less than 20, 20 to 29, and above 30. Table IV presents the results of this analysis.

TABLE IV

Age and Attitude Toward Various Incentives

	Males			Females		
	Less than 20 Years	20-29 Years	30 Years and Above	Less than 20 Years	20-29 Years	30 Years and Above
Salary	43%	47%	45%	39%	39%	37%
Security	72%	65%	78%	71%	70%	77%
Supervisor	38%	32%	33%	46%	48%	42%
Hours of Work	10%	17%	13%	17%	20%	27%
Advancement	88%	89%	81%	78%	78%	67%

From this table the evidence available indicates that the group over 30 years of age is less interested in advancement than are the younger groups. This is true for both males and females. The group over 30 places greater emphasis on security than the younger groups. There is less importance attached to the supervisor relationship with age. The females, as they get older, become interested in working fewer hours. It is to be noticed that salary remains relatively constant with age for both sexes.

Data were available on the number of jobs held and years employed. The results of analyses on these bases were very similar to the results obtained with the various age groups. Naturally, the older a person is, the greater the opportunity for additional jobs and longer service with the employer. However, a much larger group of subjects would be required before one could determine definitely whether this close relationship exists among the jobs held, years employed and age.

The attitudes of the subjects were analyzed according to the total number of people in the firm. When a comparison is made between the attitudes of individuals working for a firm with less than five employees and those of individuals in firms of 100 or more employees, it is found that advancement is rated by employees of large firms as much more important

than by those working for small firms. The supervisor is much more important in small than in large firms. The other three incentives are rated alike by both groups.

The attitudes of employees toward the five incentives were measured by the paired comparison technique, and it was found that advancement and security were considered the two most important incentives. Hours of work was rated as least important. Salary was rated as third by the males and fourth by the females. Supervisor relationship was considered as fourth in importance to the males but third to the females.

Married males consider security more important and advancement less important than the single male group.

Married females are interested in working fewer hours than the single females.

The significance of advancement as an incentive decreases with age for both male and female groups, and security becomes more important with age.

SUMMARY

A questionnaire employing the paired comparison technique was distributed to determine employee attitudes toward five incentives. It was found that advancement and security were considered more important than salary, and that the attitudes of employees change according to such major classifications as sex, marital status and age.

Selecting and Training Women for Precision Inspection

By E. S. EVANS
Personnel Director
The Shelton Looms

RELEASES from Selective Service Headquarters make it all too plain that occupational deferments will be granted only in exceptional cases, and that the period of deferment must be used to train replacements. This means that industry must be prepared to employ women not only for unskilled and semi-skilled production jobs but in highly skilled mechanical occupations. As few women trained for these positions can be found, industry must be prepared to train them.

That women without previous experience in such jobs can handle them after comparatively brief training is shown by the experience of one company (of which the writer was formerly employment manager) in which the main burden of gauge inspection was carried by a group of girls who had no previous experience. Moreover, the work consisted of the inspection of a wide variety of

gauges, including almost every type and size manufactured—plug, straight, location, profile, height and depth, thread, concentricity, snap, chamber, etc. Accent, of course, was on precision, with tolerances from 0 to .0001 and .0002 and as low as 3 seconds on angles. Comparisons of Johansen type block gauges were made to .000006 of an inch.

The job required a high degree of intelligence and manual dexterity and, more than that, a "practical mind" and an interest in mechanical processes. For this reason, it was decided to recruit the examiners from among college graduates who had majored in physics or mathematics. And, as a girl much under 21 or 22 would not be likely to have the necessary educational background and a woman over 30 who had never handled any precision equipment might be impossible to train, the age range, generally speaking, was kept between 21 and 30.

The qualifications and a rough outline of the duties to be performed were listed with college placement bureaus and commercial employment agencies, and eventually about 40 girls were hired. Of this number, approximately 30 had bachelors' degrees, four or five had masters' degrees, and one had almost completed her work for a Ph.D. The one or two who did not have minimum educational qualifications were known, prior to employment, to be peculiarly fitted for the work. Almost none of the girls, however, had any previous job experience, with the exception of a few who had been teachers.

Since the number of girls with the necessary training and aptitudes was distinctly limited, applications, which were numerous at first, later tapered off, and it became necessary to revise the list of qualifications. Candidates who had majored in chemistry, with a minor in mathematics or physics, were interviewed, but, as will be shown later, not many successful ones were obtained from this group. (Perhaps this lack of qualified trainees could be best overcome by providing particularly good working conditions and setting the wage rate sufficiently high to attract women already employed as teachers and statisticians.)

The interview presented several interesting problems. It was necessary to eliminate candidates who had no mechanical aptitude, but without recourse to the usual standard tests, which were not available. Girls whose approach to the job was academic rather than practical also had to be weeded out.

First of all, then, the applicant was asked to outline in detail her college courses in physics and mathematics and to talk about her college work—what she liked best and why. An attempt was made to have her volunteer information; the more she talked, the easier it was to evaluate her qualifications. If a girl was self-conscious, the interviewer might occasionally challenge a statement in order to make her forget herself in defending her position. A few girls, however, would not respond to this treatment. In such cases the interviewer had to fall back on a purely question-and-answer type of interview, which was much less satisfactory. Most of those in this group were not hired; they failed to "sell" themselves.

An important point, also, was to discover whether the applicant preferred the laboratory or the lecture phase of the college course, and the few girls who expressed a distinct aversion to laboratory work were not hired. In cases where a girl had attended a co-educational college, the interviewer tried to determine whether she or a male partner actually performed the laboratory experiments. Girls with an out-and-out preference for the laboratory were wanted.

The next step was the presentation of an actual problem in tool inspection. A sketch of a milling cutter for cutting V-shaped key-ways was shown to the applicant. The cutter was mounted on an arbor, which rested on uprights that were at 90° to a surface plate, and the applicant was asked to demonstrate how she would prove that there was a 60° divergency between the blades, and how many degrees either side of the center line separated the blades, taking for granted the fact that it was impossible to place a micrometer or any other instrument on the cutter to measure the divergency. If she indicated that she would use a series of external measurements from the table or the uprights to the cutter, she was on the right track.

This test served to reveal whether or not the applicant could apply her mathematics to a practical problem. One prospect, for instance, who had graduated with a *magna cum laude* in mathematics and physics asked if there were a formula for the solution. When told that there was none, she said she was surprised that anyone should be asked to do such work and admitted that she had not the faintest idea how to tackle the problem. Most of the unsuccessful applicants, in fact, were eliminated at this point. This was particularly true in the case of the chemistry majors, many of whom exhibited a real lack of practical mechanical ability—possibly because the skills required in the chemistry and physics laboratories vary greatly.

Having passed this test, applicants were asked to discuss their hobbies, and here the interviewer's task was to get the girl to overcome her self-consciousness and tell things which might seem to her rather childish. In brief, the interviewer wanted her to say, "I like to fool around with gadgets and make minor mechanical or electrical repairs around the house." A statement of this type weighed more heavily than anything else. Sometimes, even, this test was made earlier, and if the applicant made a sufficiently convincing statement the problem of the milling cutter might be eliminated.

Successful candidates were given a month's training by an experienced gauge-maker. This consisted of instruction and practice in the use of micrometers, height and depth gauges, Johansen type blocks, P & W comparators, super-micrometers, profile projectors, visual comparators, toolmakers' microscopes, etc., and instruction in methods of making minor adjustments on them. Instruction was given also in methods of gauge examination, shop mathematics, etc.

Then, gradually, instruction gave way to actual practice. At the end of a month the new examiner was put to work with an experienced girl. All girls were shifted to various types of gauges so that in a month or two all had had experience on all types.

One girl had a private pilot's license, which meant she had had mechanical training on motors; and several had done considerable amateur radio work. Contrary to what one might think, these girls were more difficult to train than those with no previous mechanical training. The trouble was that they had things to *unlearn*.

Examiners were also encouraged to take a course in precision measurements at New York University in the evening. This gave them a better theoretical background than could be gained in the laboratory. They were also taken to machine shops to see the actual operations necessary to produce some types of gauges, thus learning to understand nomenclature which had been difficult for them.

Eventually the supervisors decided the type of gauge best handled by each girl, and she spent as much time on that particular type as production demands permitted. Some girls were unable during certain periods of the month to handle extremely fine work which normally they did with ease and precision. At such times they seemed to lack the nervous stability and coordination necessary for work on fine thread gauges and similar confining work. However, they proved quite capable during these periods of doing the more routine work on "go and no go" gauges.

THE PERSONNEL BOOKSHELF

The Dynamics of Industrial Democracy. By Clinton S. Golden and Harold J. Ruttenberg. Harper & Brothers, New York, 1942. 358 pages. $3.00.

Reviewed by Sumner H. Slichter

"WE believe that American Industry is on the threshold of a new era in human relations—the greatest period in union-management relations. The turmoil and strife of the last decade have merely reflected the transitional character of the relations between workers and management. Out of this transitional period is emerging a new capacity on the part of those in industry, regardless of their different positions . . . to work together as a unit—literally with singleness of purpose and of action for the attainment of a common objective."

The above quotation is from the preface of one of the most practical and inspiring books on industrial relations to have appeared in years. For the most part the book is a report and an interpretation of the experience of the two authors as union representatives in the steel industry during the last six years. The authors have reduced their observations to 37 propositions which are listed in a preliminary statement. These propositions are repeated in the text and are followed by case reports to illustrate them, along with some interpretative and editorial comment.

The authors describe their book as essentially "a discussion of democratic techniques." They go out of their way to put the reader on notice that the focus of their attention is not particularly on economic matters. This subordination of economic issues to other questions is as it should be. It is true that collective bargaining will not work very satisfactorily in the long run unless union policies and employer policies take honest account of economic realities and unless these policies are based to a considerable extent on interests which all groups throughout the community have in common rather than on the special interests of the workers and employers in particular industries or plants. These fundamental economic issues, however, cannot be very adequately faced until collective bargaining is fairly well established and has some degree of maturity.

The first decade or so of collective bargaining must be devoted to reconstructing human relationships—to getting managers to appreciate the spiritual starvation produced among workers by either dictatorial or paternalistic management, to understand the thirst of men for richer and fuller lives, and to see that unions are not all alike and that management has much to do with the kind of men who rise to the top in unions and with the sort of policies which unions pursue. Likewise, the first decade or so of collective bargaining must be devoted to getting union members and union leaders to understand more vividly what is involved in running a business, in meeting competition, and in deciding questions of plant location and technological change, and to appreciate the idealism which many practical managers attempt to hide under an exterior of "hardboiledness." The book derives it usefulness largely from the clarity with which the two authors see all this and from the insight, shrewd-

ness, tolerance and good will with which they view and interpret the behavior of workers and bosses alike.

The first four chapters are a brilliant analysis of the growing pains of unions and collective bargaining. The authors assert (p. 48) that "the attitudes and actions of management largely determine the degree of cooperativeness of union leadership." There is much truth in that, especially in the early stages of collective bargaining, but unfortunately managers do not always get the kind of union leadership they deserve. Perhaps the authors are too modest to admit it, but "the attitudes and actions of union leaders determine the degree of cooperativeness of management" — particularly after a management has dealt with unions long enough to know that union leaders are not necessarily reckless agitators or timid politicians, and that many a business agent takes pride in calling them as he sees them. Of particular interest and importance is the discussion (pp. 59-71) on the responsibility of unions for the development of their leaders. Their observations in this section on training for management are also much to the point. The business schools of the country need to improve greatly the opportunity for men with ability and leadership qualities but with little schooling and scanty financial resources to enter their courses.

Two chapters deal with union-management cooperation for the purpose of increasing production and reducing costs. The authors do not believe that unions should be merely agencies to adjust grievances and bargain over the proceeds of production. They regard cooperation to improve technology as a normal activity of the union. They make the interesting observation (p. 283) that "union-management cooperation has greater possibilities in large, profitable firms than in ones that are forced into it by economic adversity." Let us hope that this is true, but it must be confessed that evidence to support this conclusion remains to be accumulated. Most of the experiments in union-management cooperation in both the steel industry and other industries have been in plants where workers have had special reason to show an interest in production problems, either to save their jobs or to bring additional work into the shop.

The chapters on union-management cooperation illustrate vividly both the improvements in output which union-management cooperation makes possible and the numerous obstacles and difficulties which it encounters. The authors dispose effectively of the idea that thinking is a prerogative of management. The preposterousness of this notion is evident when one remembers that probably one-third or more of the men who will be the presidents of enterprises or the managers of plants 20 or 25 years from now punched a time clock in some plant this morning. A high proportion of the ablest men in industry have always come from the ranks, and many of the industrial leaders of the future are in the ranks today. This means that many a foreman and many a plant manager has under him men who are far abler than he is and who will rise far higher in industry than he will ever go. It is one of the responsibilities of management to discover these extraordinarily able men as soon as possible and to get ideas from them. Thus, such an executive as W. S. Gifford of the American Telephone & Telegraph Company, with approximately 200,000 employees, must have several score of geniuses or near-geniuses in his ranks. Sooner or later these unusually able men are pretty certain to make their presence known, but management has accomplished something important if it discovers them earlier than they otherwise would become known. And, of course, many men who are never going to be executives have excellent

ideas. The responsibility of management is to decide which innovations are worth trying out. Management does not have to experiment with any idea proposed by a cooperative committee unless it wishes to. It should be noted, however, that some ideas which managements put into effect with misgivings turn out to be unexpectedly good.

Nor is there anything in union-management cooperation which limits management's authority to make innovations on its own initiative. The extent to which managements are free to alter methods and practices is one which is bound to arise wherever there is collective bargaining, regardless of whether or not union-management cooperation exists. It is a purpose of trade agreements to place certain restrictions upon the making of innovations by management. This is a difficult and important part of the agreement to draft. The object of both sides should be to safeguard the essential rights of the workers so effectively that management can be given great discretion in making innovations. The success of enterprises in adapting themselves to a rapidly changing world depends upon this. The case for the closed shop derives much of its strength from the problem of combining security for the union with freedom of management to make the kind of adjustments which are necessary to give economic security to the enterprise and to those on its payroll. The security of the employees can never be greater than the security of the concern for which they work.

I do not wish to clutter up this review of a book primarily about human relationships with observations on economic issues. Nevertheless, Chapters VI, X and XI deal very largely with economic matters. The economics of collective bargaining is just beginning to be investigated. No one can speak yet with very much assurance upon these matters. There seems little question that the way in which collective bargaining affects the level of employment and the standard of living will depend upon the wage policies pursued by unions and employers, and that these wage policies in turn will depend in large measure upon the unit of collective bargaining. The demand for labor by an industry is much less elastic than the demand for labor by a firm. If wages are set on the basis of industry-demand curves through industry-wide collective bargaining, as Golden and Ruttenberg desire, one may suspect that the resulting wage structure will be different from the wage structure which will result from bargaining by individual enterprises or small groups of enterprises. The choice between the two must be made on the basis of which type of wage structure will produce a larger total volume of employment.

Statistical records do not indicate that collective bargaining is likely to be particularly effective in producing a distribution of earnings in favor of labor. Between 1929 and 1937, the purchasing power of hourly earnings in manufacturing rose over 34 per cent. Despite this rapid rise in real wages, the ratio of private payrolls to the product produced by private industry rose only from 59.6 per cent in 1929 to 63.4 per cent in 1937. There seem to be certain fundamental influences governing the distribution of income which bargaining power has little capacity to affect. For 50 years following 1880, business was pretty much in the saddle in this country. During that period, capital per worker (in dollars of constant purchasing power) increased nearly threefold. Under these circumstances one might expect the share of property in the national income to rise. As a matter of fact, it fell from 26.8 per cent in 1880 to 19.2 per cent for the decade 1919 to 1928. Even if labor were to appropriate *all* the profits of industry, payrolls in a good

year would be raised only about 15 per cent—assuming that employment would not be affected. But, of course, employment would be affected. In fact, an improvement in the prospects for profit by one billion dollars apparently increases the demand for labor by from five to ten billion dollars, and an unfavorable turn in profit prospects diminishes the demand for labor by five to ten billion dollars for each drop of a billion in the outlook for profits. When one thinks in terms of labor as a whole and capital as a whole, the conflict of interest between the two becomes surprisingly insignificant because the same cost-price relationships which produce the largest payrolls produce the largest volume of profits. It is only when bargaining occurs by enterprises or industries that the conflict of interest seems to be important. It does not follow that there is not a strong economic case for collective bargaining. That case, however, consists in the main in the effect of collective bargaining in stimulating faster technological change rather than transferring income from one large class of recipients to another.

As the authors have very well pointed out, however, their book does not attempt in the main to deal with these long-run and fundamental economic issues. The rapid rise of collective bargaining gives all of us, but particularly union leaders and business managers, a tremendous job of psychological reconstruction—getting rid of ancient ideas, prejudices, fears and hates, and replacing them with knowledge of the other fellow and willingness to work together. That is the immediate task to be done and that is the task to which the authors have made a superb contribution. Theirs is a book which should be read and reread by every manager, foreman, business agent and shop steward. There are probably at least a million and a half managers and foremen in American industry. In addition, there must be well over 200,000 union offices and committeemen. If less than 1,700,000 copies of this book are sold, therefore, it will be failing to reach all those who vitally need it.

I cannot refrain from quoting an excellent comment from page 341: "Men live by dreams as much as by bread, if not more so. They fight for ideals more than they fight to keep material things." This is true, and I hope that Karl Marx, somewhere in the Great Beyond, has an opportunity to read what two American labor leaders of the twentieth century think of his materialistic interpretation of history. These are good sentences also for any employer who believes that mere paternalism can quench the desire of men to express themselves through trade unions.

The Health and Efficiency of Munition Workers. By H. M. Vernon, M.D. Oxford University Press, New York, 1940. 138 pages. $2.50.

Hours of Work, Lost Time and Labour Wastage. *Emergency Report No. 2,* Medical Research Council, Industrial Health Research Board. His Majesty's Stationery Office, London, 1942. 26 pages. 6*d.*

Reviewed by Elton Mayo

THESE two publications demand notice together: the one is a careful account of the methods of observation to be followed by the scientists responsible for the health and efficiency of industrial workers during the emergency; the other is a statement of the results obtained by such methods.

Dr. Vernon's small book was published in August, 1940. It was only possible for him to take account of the first eight months of the war. Beyond this, his book was completed for publi-

cation at a time when the fortunes of England were at the lowest ebb. France had been knocked out of the war, England had lost all her military equipment at Dunquerque and faced the strongest aggregation of military power in history —unarmed and without an ally. The English worker had rallied to the colossal task of re-equipping the army and simultaneously sending about 80 per cent of the arms and munitions he produced to distant parts of England's scattered Empire. The German air attack upon England, designed to knock her out immediately, had not yet developed its full intensity: everyone knew that such an attack was imminent, and no one, not even the Air Command, knew whether the relatively small—but excellent — air force could withstand the smashing blow. Churchill's expression of "so much owed by so many to so few" was yet to come. What wonder that in this situation of desperate emergency and with so little actual investigation to describe, Vernon should have recourse to the pioneer work he did in the last war (for the Health of Munition Workers Committee and later continued for the Industrial Fatigue Research Board) and should have patiently set down the problems to be studied, the methods to be pursued, and the tentative conclusions possible. If he finds that manufacturers tend to increase the hours of work when increased production is demanded, that his admirable findings of so many years before are ignored, who can wonder that this should have been so in the situation that existed then?

The second publication tells another story. Its date of issue is January 5, 1942. The Pearl Harbor treachery has brought the United States wholeheartedly into the war, the dogged inch by inch struggle against overwhelming odds is in process of powerful supplementation—and, beyond this, there is the English experience of over two years of unrelieved emergency to be documented. The story is one of unprecedented unity in the face of danger, of resolution as strong in the working ranks as in the administrative organization. But there is immense justification also for the observance of optimum conditions of work as described by Vernon. The shift system, for example, has come into its own —a three-shift system in operation in two factories is described: the maximum possible hours of weekly work being thus 56. But except in June and July, 1940, these hours were not rigidly enforced. "In both factories the total time lost through sickness, injury and absence without permission seldom exceeded 5 per cent." And casual absence even in the winter months "remained almost negligible."

Vernon's prediction that long hours of work would not result in a proportionate increase of production had been justified. Even during the height of the emergency period in June and July, 1940, there was an "increase in lost time." "Interviews with managers and workers in several factories showed that the outbursts of energy and patriotic enthusiasm which characterized the first phase of the emergency period were weakening under the strain of the long hours of work." The need for systematic curtailment of working hours was officially recognized on July 25, 1940, and the reduction of hours "was immediately reflected in better time-keeping."

Both publications are well arranged, and there is an excellent summary of findings in the second. Everyone interested in management should procure copies of these statements of English experience in two wars. Indeed, for many current questions in the United States there will be found here an answer in embryo.

Staging a Plant War Rally

ANY defense plant working on war orders for the Army can stimulate the "all-out for full war production" spirit among both employees and management by staging a successful war rally inside the factory. Such an event was recently observed at The Crosley Corporation, Cincinnati, Ohio, where Lieut. Col. A. Robert Ginsburgh, Chief, Industrial Information Branch, War Department, Washington, D. C., was principal speaker for the Army. More than 1,800 employees congregated in a large wing of the Crosley factory and participated in singing patriotic songs and listening to a panel of speakers.

Such events are scheduled originally by the plant management. A request for a speaker for the meeting is addressed by the management to the Office of the Under Secretary of War. This request is acknowledged and a date for the event is established. Then time off, with pay, is allowed to workers by the management for the ceremonies to take place. The Under Secretary of War sends a speaker together with a number of other officers to the plant, where they are joined by enlisted men and officers from a nearby post. The entire group then assembie at the factory, attend the ceremonies, visit with the factory workers, and observe production operations, thus familiarizing the men and women who make munitions with the men who use them. This provides a fine opportunity for military men to see how munitions are made and in turn enables the plant employees to realize that they are producing military products for real fighting men who need to be backed up 100 per cent by maximum factory output. The official ceremonies are usually broadcast over the local radio stations so that community morale is stimulated by the event.

To stage a war rally, the cooperation of the local union is essential. At the Crosley plant, the president of the local union conferred with the management regarding plans, and both the union president and the general manager of the plant spoke briefly to the assembled workers pledging cooperation in war production before Col. Ginsburgh delivered the main address.

Crosley officials were enthusiastic about their experience with the plant war rally. Powel Crosley, Jr., president, said: "It is a splendid example of how the Army successfully familiarizes the factory employees with the military importance of their jobs."

—*Mill & Factory* 3/42